Clinical Lecture
ON
FUNCTIONAL DISEASES OF THE LIVER.

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(*Continued from page 1175.*)

IN what way can we explain the sudden change from an excess to a deficiency of the salivary salt that we have seen occur, not only in phthisis and cancer, but also in many cases of long-standing inflammations? I think the most probable hypothesis is that the nutritive organs are at first stimulated to unusual activity in order to supply the materials for increased growth, and that we then find the sulphocyanide in excess; but that this augmented functional activity is after a time succeeded by a corresponding depression, in accordance with the law that an excessive exercise of any organ is followed by a diminution of its functional power, and that when this occurs the patient exhibits the proof of it in his loss of strength, flesh, and colour, as well as in the deficiency of the salivary salt. We have before seen that an increased growth of structure, whether local or general, must be accompanied by a sufficient power of digestion, in order that the sulphocyanide should present itself in increased amount; it will be therefore necessary to inquire into the state of the salivary salt in various diseases of the digestive apparatus when there is no demand made upon them for unusual exertion.

In the earlier stages of stricture of the œsophagus and of the pylorus the amount of the salivary salt is generally either normal or above the usual quantity, so long as sufficient food can be taken to maintain the nutrition of the body; but as soon as this ceases to be the case the quantity sinks below the normal. In cancer of the stomach, as I have before mentioned, the amount generally soon becomes subnormal. In gastric catarrh it is usually above the normal, probably because this condition is so often associated with acute congestion of the liver. In atonic dyspepsia, on the contrary, the amount is ordinarily subnormal; in fact, this is by far the most frequent cause of a deficiency of the sulphocyanide, for 39 out of 111 "private cases," in which the amount was below the average, were instances of this disorder. They were all very severe cases, the appetite being bad in all; in many the sensation of hunger was totally absent, or was replaced by a loathing of all food. It is probable that feebleness of the stomach is a common cause of a deficiency of sulphocyanide in various chronic maladies, for in 84 persons presenting this condition the appetite was stated to be bad in 55, moderate in 12, and good in only 17 of the whole number.

Vomiting is a common accompaniment of a deficient amount of the sulphocyanide, but this has only been observed where the rejection of the contents of the stomach was frequent and complete. It is not the case in the so-called "hysterical vomiting," and the condition of the saliva might possibly be of value in the diagnosis of this latter condition. In phthisis vomiting assists in enfeebling the patient, and also in producing the small amount of the salivary salt we have before seen is common in the latter stages of that disorder. But it is only fair to remind you that in vomiting there is generally an increased flow of saliva, and we may doubt whether the deficiency of the sulphocyanide may not be due, in certain cases, as in gastric cancer, to exhaustion of the salivary glands, arising from their undue action. This objection is, however, disposed of by the fact that in some of the cases of gastric cancer where the vomiting was relieved by the regular washing out of the organ, there was no increase thereby produced in the quantity of the salivary salt.

An occasional attack of diarrhœa or the exhibition of a purgative does not seem to affect the quantity of the sulphocyanide; but if dysentery or diarrhœa has been continued long enough to diminish the general nutrition, it then falls below the normal amount. Thus 23 per cent. of the cases observed in the "private cases," who presented a decrease of the salivary salt were suffering from one or other of these conditions. It is of course possible, if the saliva be examined only after the cessation of the dysentery, that you may find an excess instead of a deficiency of the sulphocyanide, as an unusual demand may be made on the digestive organs in order to repair the loss occasioned by the undue waste. Thus, a patient was admitted on Oct. 27th, 1883, with a sharp attack of dysentery which had commenced on that day; the discharge of blood and mucus entirely ceased on the 31st, and the saliva then was +4. It remained at the same point two weeks longer, when it fell to $+2\frac{1}{2}$, and finally in the sixth week to +1, when he was discharged cured.

From a consideration of the effects of long-standing diarrhœa, we might have conjectured that any cause that prevented the absorption of the digested food from the intestine would be followed by a change in the saliva. I had not, however, thought of this. I was therefore much surprised to discover a marked alteration produced by the tapping of persons suffering from ascites arising from cirrhosis. The saliva of a man affected with this complaint, whose abdomen was tensely distended with fluid, was examined on May 11th, and found to be −3°; on the 14th he was tapped, and three days afterwards the sulphocyanide had risen to $+2\frac{1}{2}$°; on the 28th it had again fallen to −1°, but on that day 470 ounces of fluid were removed by aspiration; and on the 31st it had risen to $+2\frac{1}{2}$, after which date it gradually declined each week to +2, $+1\frac{1}{2}$, +N, subsequently to which there are no records. In a second case the sulphocyanide was only −3 on November 15th; on the 20th tapping was performed, and on the same day it rose to $+\frac{1}{2}$°; on December 28th it was only −1°, when aspiration was again practised, but the patient sank a few days afterwards. Three cases of this kind are recorded, each being tapped twice; the average quantity of the sulphocyanide was −1·8 just before the operations, and +1·04 shortly after them. This is not due simply to the removal of an obstruction from the general circulation; for no alteration in the amount of the salivary salt was observed after aspiration of the pleura, nor did it occur where the distension was only moderate, as you will see in a man suffering from ascites dependent on cirrhosis at present in the wards. In this latter case the fluid had been collecting for three years, and although there was a considerable quantity of liquid in the peritoneum, there was no great amount of internal pressure. He was tapped at his own request, and the saliva was not below the normal point before the performance of the operation. On the other hand, the sulphocyanide may be below the normal in ascites arising from other causes, not from the pressure of the fluid, but from imperfect digestion, and in this case the tapping does not alter the amount. For example, a man suffering from cancerous tumours of the abdomen was admitted, whose peritoneum also contained a considerable quantity of fluid. On Nov. 14th the saliva was normal; tapping was employed the same day in the hope of relieving his pain, and on Nov. 21st the quantity of sulphocyanide was $-\frac{1}{2}$°; on Nov. 28th it was −1°, and he was aspirated on Dec. 1st; on Dec. 6th it had sunk to −3°, and he died from exhaustion on Dec. 8th. I think, then, we may conclude that when the amount of the salivary salt falls much below the normal in persons suffering from ascites arising from cirrhosis, tapping is indicated; and that where there is a rapid increase in the sulphocyanide after the operation, it is probable that the former condition had resulted from pressure on the portal vessels, and not from causes immediately impairing the digestive organs.

On commencing these inquiries I suspected that the presence of the sulphocyanide in the saliva would be found to depend on a decomposition of the biliary salts, and that an increased amount would be observed in all cases of jaundice. On the contrary, in one instance of jaundice arising from duodenal catarrh in the "later hospital cases" the salt was −2 in the first week of the illness; in the next, in which the yellowness of the skin was much diminished and the colour of the stools improved, it rose to −1°; and in the third, when the patient was dismissed, it amounted to +2°. In a second case it was −2° on admission; three days afterwards it was normal; on the tenth day, when the patient had greatly improved, it was +1°; and he was dismissed cured on the nineteenth day. Taking the "earlier hospital cases," where the variations of the sulphocyanide were less minutely recorded, I find that of twenty-three

affected with jaundice the salivary salt was deficient in eighteen, and in some of them not a trace of colour could be obtained by the addition of the perchloride of iron. In two the quantity was normal, but one of these had so far recovered as to have been placed on full diet, and in the other post-mortem examination proved the jaundice to have resulted from the rupture of a hydatid cyst into the ducts of the liver, the opening of the common duct being only partially obstructed, and bile being present in the duodenum. In three cases the quantity was above the normal, and in one of these there was cancer of the liver; the histories of the others could not be obtained. From these observations it would seem probable that in order that the salt should appear in the saliva the bile must be able to enter the duodenum, and this seems to be supported by the fact that in two cases admitted into the hospital, where large quantities of bile were expectorated, probably from perforation of the lungs by hydatid cysts of the liver, scarcely any colour could be produced in the saliva by the addition of the solution of iron. Supporting the same conclusion is the circumstance that in some cases of jaundice the depth of the colour varies always with the amount of the salivary salt. Thus a lady had suffered for three weeks from jaundice arising apparently from hypertrophic cirrhosis; the skin and urine were deeply tinged, the stools white, and the saliva free from sulphocyanide. She was treated by perchloride of mercury, and in three weeks the stools became partially coloured, and a slight tinge was produced in her saliva by the addition of iron. In two weeks afterwards diarrhœa occurred, the stools being deeply stained with bile, and although the skin and urine remained yellow the saliva contained an abundance of the salt. Again, a gentleman had been for three months deeply jaundiced, the saliva being −2°. In two months afterwards the jaundice had greatly lessened, the stools were brown coloured, and the saliva was +2. Two or three weeks afterwards he had a severe attack of pain in the abdomen, with an increase of jaundice, and the sulphocyanide again became deficient. When I last saw him he was much better, and the salivary salt was again +2°. In *severe* cases of jaundice the deficiency of the sulphocyanide is, unless cancer be present, greatest at the commencement of the case, for I found in the "earlier hospital cases" there was, on the average, twice the quantity in the saliva of those examined five weeks after the onset of the disease that there was in those who came under observation in the first week of their illness. This rule, however, does not hold good for the temporary cases following severe pain of the abdomen, and usually referred to the passage of gall-stones. In two instances of this kind the saliva was normal, even at the commencement, and the jaundice passed away in a few days. Although there are other circumstances that modify the conclusions that seem necessarily to arise from the above facts, we may lay it down as a general rule that a deficiency of the salivary salt in the first week of jaundice is unimportant, but that when it persists after many weeks' duration it is of evil omen, as pointing either to an insuperable stricture of the common duct or to some malignant growth that is sapping the strength of the patient.

In every case of lead colic the sulphocyanide was absent, or present in diminished quantity, until the urgent symptoms subsided, after which an excess was usually observed. Let me quote to you one or two instances from the "later hospital cases." A man, aged twenty-four, was admitted into the wards with lead colic of six days' standing on July 13th, and his saliva was noted as −2°. The bowels were freely moved by medicine, the pain and vomiting were relieved, and on the 17th it was +1°. A man, aged thirty-six, was admitted with lead colic of two days' duration on July 16th; on July 19th the pain of the abdomen was less and the bowels had acted, but he complained of pain in the epigastrium, and the saliva was −1°; on July 26th he had no abdominal pain, and the saliva had risen to +1½; on Aug. 2nd he was still free from pain, and the saliva was +2°. A man was admitted on Oct. 1st with lead colic; on Oct. 4th the saliva was −½, and on Oct. 11th, when the pain had quite left him, it had risen to +2. The cause of this diminution in lead colic is, however, susceptible of explanation on the supposition that, as the saliva was always very thick and tenacious, the lead might have acted directly as an astringent upon the salivary glands. I therefore stimulated the secretion by the application of tincture of pyrethrum to the tongue, but, although the quantity of the fluid was increased, there still remained a deficiency of colour on the addition of perchloride of iron. I therefore came to the conclusion that the alteration in the amount of the sulphocyanide was not due to a mere local cause. But however we may explain the diminution of the salivary salt in lead colic, the fact may be of great use in diagnosis. We see occasionally symptoms of peritonitis, of gastric ulcer, and other abdominal disorders in persons who have a blue line around their teeth, and in such instances it is difficult to determine whether the symptoms are due to the absorption of lead or not. The state of the saliva may settle the point, and thus indicate the treatment that should be undertaken for the patient's relief.

In all cases where the symptoms and physical signs have pointed to acute congestion of the liver arising from the abuse of alcohol, overfeeding, or indolence, I have remarked the amount of the salivary salt to be above the normal amount. In chronic congestion of any organ, as we see exemplified in congested kidney resulting from disease of the heart, its functional activity is lessened, and it is not able to resume its normal powers of secretion until the pressure is removed. Let us, then, ascertain the state of the saliva in heart disease, and see if any similar change occurs.

In cases of aortic regurgitation, as you are aware, pressure upon the general venous system only occasionally takes place, so that we should not expect to find much alteration in the saliva. In six cases of this kind the average amount of sulphocyanide was only +·43, and the following table shows that there was very little change when they were examined each week during the period of their residence in the hospital.

TABLE IV.—*Showing the state of the Saliva each week in Cases of Aortic Regurgitation.*

	Number of weeks in hospital.				
	1	2	3	4	5
Average amount of sulphocyanide ...	+·50	+·12	+1·25	+·66	+1·2
Number of cases examined	2	4	1	3	2

Now, although in the above figures you will observe the amount is greater in the fifth than in the first week after admission, there is no evidence of a regular increase; for in the second week it is smaller than in the first, and in the fourth it is very little above what was remarked in the first. We may conclude, then, that if the quantity of the salivary salt is an index to the activity of the digestive powers, these suffer but little in regurgitation through the aortic orifice.

Now let us examine cases of dilatation of the heart and of mitral disease in which pressure upon the venous system is sooner or later developed. Here the difference is most striking, as there were eight cases in which either the patients died or were removed by their friends in a dying condition, and of these five presented on their admission to the hospital an average of −·95. In two cases it was on admission above the normal amount, but in each, as time went on, there was a gradual decrease in the salivary salt. Thus in one it was at first +2½, next week +1½, after which no further examination is recorded; in another it was at first +2¾, then it fell successively to +2 and +¼, which was quickly followed by death. On the contrary, wherever there was a steady improvement there was a weekly augmentation in the quantity of the sulphocyanide. To illustrate this I have added the following table.

TABLE V.—*Showing the Weekly Amount of Sulphocyanide in the Cases of Mitral Disease that improved in the Hospital.*

	Weeks in hospital.						
	1	2	3	4	5	6	7
Average of Sulphocyanide	+·47	+1·1	+·66	+1·7	+2·2	+2·9	+2·75
Number of cases examined	12	12	12	10	5	5	1

If you look at this table, you will remark that, although there is a decrease in the third as compared with the second week, the rise week by week in all the periods was gradual, marking, we may suppose, the diminution in the pressure on the venous system, and thus allowing the digestive organs to regain their normal condition. But you will naturally ask, How it is that heart cases during convalescence

should show such an increase of the salivary salt? It is, I suspect, because during the illness the general nutrition has suffered, and the system calls, as after typhoid, for an augmented quantity of new material, and consequently the digestive apparatus is stimulated to unusual activity. But in heart disease we should remember that the respiratory functions are as much or more disturbed than the digestive. May not the variations in the saliva, then, be due to the pulmonary congestion, and not to that of the liver? I think this is not the case, because in the later stages of phthisis we found the salivary salt was always much below the normal point, although difficulty of breathing is a marked feature in that stage of the disease. But, however we may explain these facts, there is no doubt, if their accuracy should be confirmed by future researches, that the condition of the saliva places in our hands a valuable aid in the prognosis and treatment of diseases of the heart. When there is a gradual increase in the amount of the sulphocyanide, we may hope that the pressure on the venous system is diminishing and the digestive organs are regaining their functions; whilst when the quantity sinks week by week, we can only look forward to a decay of the vital functions and to a fatal termination of the case. I have only examined one case of acute yellow atrophy of the liver. A woman was admitted with jaundice of two or three weeks' duration, and there were no symptoms indicative of this fatal disorder. On examination of the saliva, the ordinary colour produced by the addition of the perchloride of iron was absent, but it had a brownish tinge, and I remarked to the students present that in all probability, although the case was an obscure one, it would prove dangerous or tedious. Delirium set in suddenly, the space of the hepatic dulness rapidly diminished, and she died in two or three days. I have been informed by Mr. Hurry Fenwick that he has remarked a brown colour in the saliva on addition of iron in cases of pyæmia, but I have not myself verified the observation. It is, however, worth while to bear this in mind as various modifications of the sulphocyanide may perhaps be discovered in different diseases. If we should find that the ordinary salivary salt is always absent in cases of acute yellow atrophy of the liver, it may enable us to suspect the presence of this formidable malady where there are no other indications of it. I have found that the quantity of the salivary salt occasionally differs to a considerable extent from the normal in those who seem to be in good health, and it therefore becomes a matter of interest to inquire whether persons who present this condition are more prone to disease than others, and if so, to what maladies they are especially liable. At an early period of these inquiries I was struck with the unusual quantity of the sulphocyanide secreted by persons suffering from acute rheumatism, and this fact was confirmed by both the gentlemen who so kindly assisted me. Of thirty-six cases of this disease recorded in the "earlier hospital cases," all but one, whose saliva was normal, showed a marked excess of sulphocyanide, the amount varying from eight times to twice the ordinary quantity. As I before explained to you the depth of the colour in the earlier observations was not so carefully estimated as afterwards, so I shall now confine myself to the results obtained by the later and more accurate inquiries. Fifty-five were recorded in the "later hospital cases," which are grouped in the following table according to their stay in the hospital, but these include a considerable number of subacute and gonorrhœal cases, in which the quantity of the salivary salt is usually small, and consequently the average quantities are much less than you might expect from the former statement.

TABLE VI.—*Showing the Amount of Sulphocyanide in Cases of Rheumatic Fever grouped according to their duration in the Hospital.*

—	Period of residence in hospital.			
	7 days.	7 to 28 days.	28 to 56 days.	Above 56 days.
Average depth of colour... ...	+·33	+·94	+·1·7	+2·62
Number of cases examined ...	3	26	22	4

You will see by the above figures that there was a gradual rise in the amount of the sulphocyanide in proportion to the length of time required to afford permanent relief to the patients. Those included in the first column were either relapsed or doubtful cases of rheumatic fever, but I thought it was more fair to include everyone who was admitted with the diagnosis of acute rheumatism, even if the correctness of the diagnosis was doubtful. I need not tell you that acute rheumatism does not run a regular course; it consists of a succession of febrile attacks attended with articular inflammations, and you will be able therefore to understand that the smaller the quantity of the salivary salt, the less is the tendency to the recurrence of these attacks.

But the state of the saliva affords also a measure of the severity of the attacks—that is, of the number of joints that are simultaneously affected,—for when many joints are implicated the patients are obliged to apply to the hospital earlier than those in whom only one joint is painful, or where the pain is so slight that they can continue at their employments. In the following table the cases are grouped together according to the length of time the pains had been felt before their admission.

TABLE VII.—*Showing the Cases of Rheumatic Fever grouped according to the duration of the illness before admission into the Hospital.*

—	Duration of pains before admission.		
	Under 7 days.	7 to 21 days.	Above 21 days.
Average depth of colour ...	+1·65	+1·31	+1·18
Number of cases examined...	22	24	8

It may, of course, be objected that other causes besides the severity of the attack influence the early application of the patients for hospital treatment, but that this is the chief reason seems to be borne out by the experience of Dr. Hilton Fagge at Guy's Hospital; for he remarks: "A point which comes out clearly from the last column is that a comparatively long duration of the disease after admission is by no means peculiar to patients admitted at a very early period of the illness. On the other hand, it may be noticed that the cases which subsided most rapidly whilst in the hospital had already been running on for three weeks; and I am not sure that this is a mere accident, for on tabulating ten other cases which have since occurred at Guy's, and in which rapid recovery has taken place without treatment (or under treatment which I believe to be ineffectual), I find the average duration of the disease before admission was 13·7 days."[1] But you may say that, as it has been already stated that in all inflammatory disorders there is an increase of the salivary salt from the demand made upon the organs engaged in nutrition, why may not this be the reason of the excess in acute rheumatism? For the simple reason that there is no difference to be remarked during the period when the joints are affected and the intervals when they are free from inflammation; and also because, even when the attacks have subsided, and the patients are able to leave the hospital, the excess of the salivary salt has still been observable. To show this I have constructed a table. (See Table VIII.) You will remark that in each group the depth of colour was nearly the same in the week when the patients were dismissed as when they were admitted, so that, notwithstanding the pains were relieved, the excess of the sulphocyanide remained. It is also worthy of observation that no effect appears to have been produced upon the saliva by the treatment. Nevertheless, after the patients left the hospital the excess of the sulphocyanide seems to have disappeared. Thus, four patients were readmitted on account of return of pains in the limbs; one on his first admission presented a colour of +3½, which fell to +2, and he was readmitted with +1½; another had a colour of +3½, which had fallen to +2¾ when discharged, but when readmitted it was only +1½; another on his first admission presented a colour of +2, it was +2½ when he left the hospital, but it was −¾ when readmitted; a fourth returned one month after leaving the wards with a colour of −3. In all of these the pains on readmission were slight, there was scarcely any rise of temperature, and they were quickly again discharged cured. But there is another objection that has probably occurred to your minds. May not the excess of the sulpho-

[1] The Principles and Practice of Medicine. By Dr. Hilton Fagge. Vol. ii., p. 538.

cyanide in acute rheumatism and in all the febrile diseases hitherto examined be due to the increased temperature of the body, and be therefore merely an indication of the augmentation of the destructive processes by the fever, or of the inspissation of the saliva accompanying it? Table IX. has been prepared to test the truth of this objection, and was formed by calculating the average evening temperature of each case during its residence in the hospital; the whole of the cases being then grouped according to the temperatures thus obtained.

TABLE VIII.—*Showing the Depth of Colour in each Week of Residence in Hospital of Cases of Rheumatic Fever.*

		Weeks in hospital.											
		1	2	3	4	5	6	7	8	9	10	11	12
Dismissed within 8 days.	Average colour	+·33	—	—	—	—	—	—	—	—	—	—	—
	Number of cases	3	—	—	—	—	—	—	—	—	—	—	—
Dismissed, 8 to 29 days.	Average colour	+·9	+·9	+·9	+1·75	—	—	—	—	—	—	—	
	Number of cases	20	20	13	2	—	—	—	—	—	—	—	—
Dismissed, 29 to 56 days.	Average colour	+1·8	+1·72	+1·5	+1·25	+1·5	+2·1	+1·45	+1·75	—	—	—	—
	Number of cases	14	20	16	15	13	7	5	1	—	—	—	—
Dismissed, above 56 days.	Average colour	+2	+1·87	+2·25	+1·87	+3·12	+2·81	+2·62	+3·16	+2·75	+2·25	+2·	+2·
	Number of cases	2	2	2	2	2	4	4	3	3	2	1	1

TABLE IX.—*Showing the Cases of Rheumatic Fever grouped according to their average Evening Temperatures.*

—	No. of observations.	Average depth of colour.
Average evening temperature below 98°	6	+1·16
,, ,, between 98° & 99°	93	+2·25
,, ,, ,, 99° & 100°	42	+1·92
,, ,, ,, 100° & 101°	22	+1·5
,, ,, above 101°	11	+1·43

It will be remarked that the highest quantity of the sulphocyanide was in the cases in which the average temperature was 98° to 99°, and that it lessened as the average amount of heat increased, so that there is no connexion between the quantity of the salivary salt and the increased retrograde processes that are believed to occur in fever. In acute rheumatism the saliva is always abundant, so that there is no reason to suppose the augmentation in the amount of the sulphocyanide is the result of an inspissation of the secretion.

But it may be said, Is not the temperature a measure of the intensity of the disease, and ought not, therefore, the elevation of the thermometer to correspond with an augmentation of the sulphocyanide? But the *average* evening temperature does not represent the severity of the illness, for the highest temperature in each case usually occurs during the first four days after the patient's admission, and in short cases, where there is no recurrence of the fever, the patients are quickly dismissed, and consequently the average temperature is high. But where there is a frequent succession of attacks, attended with a moderate rise of temperature, the patients remain long in the hospital, and the average height of the thermometer is not much above the normal. Now it is in these protracted cases that the syphocyanide is in the greatest excess, and consequently the saliva furnishes us with a most valuable indication in respect to the prognosis of the disease.

(To be concluded.)

ON LITHOTRITY AND LITHOTOMY.

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HAVING recently had occasion to operate on two patients in succession for stone in the bladder—the one by lithotrity and the other by the lateral operation of lithotomy,—this unusual coincidence led me to reconsider the relative merits of these two operations, and that of the suprapubic method, for the removal of vesical calculus; at the same time reviewing the various accidents which may befall each such operation, the difficulties which may have to be encountered in their performance, and the dangers which may follow the footsteps of these procedures. I will first briefly narrate the two cases which suggested this critical survey.

CASE 1. *Lithotrity.*—Joseph D——, aged twenty-eight, had suffered from symptoms of stone in the bladder for about eight months previously to his admission to the Royal Free Hospital on March 4th, 1887. On sounding him, I found a calculus lying in the fundus of the bladder, which gave a dull sound, and was attended with an alkaline and mucous state of the urine. The diagnosis pointed to the presence of a phosphatic calculus, and that, judging from the extent of surface over which the convexity of the sound traversed, it seemed to be of large size, while the resistance offered to movement by the sound gave some estimate of its weight. The act of sounding was painful, and excited some spasmodic expulsion of urine. Operation was therefore postponed for a few days until the vesical irritability had been allayed by rest and recumbency in bed.

On March 12th lithotrity was performed. The patient having been anæsthetised, and the bladder moderately distended with warm water, the calculus was readily caught by the lithotrite, and measured nearly one inch and a half in its long diameter. It broke readily into pieces, and the fragments were successively crushed. In the process of pulverisation, the pieces were not sought by any exploration with the instrument; but, by fixing the female blade in the fundus of the bladder, and gently sliding the male blade backwards and forwards, the disturbance of the water sufficed to bring some fragment between the blades. By a half-rotatory movement of the instrument from side to side, other fragments were readily caught, lying beyond the middle area. When a quantity of detritus had accumulated, it was evacuated by a No. 15 evacuating catheter, the orifice of the urethral meatus having been incised to admit of the introduction of this instrument. Crushing and evacuation were repeated a second and a third time, the operation lasting an hour and a half, when I deemed it advisable to leave the remainder for another sitting. But it is worthy of note, that the water in the receiver of the aspirator is scarcely blood-stained throughout the operation. A gentle use of the lithotrite, in the manner explained, even for a long period, is better tolerated, and especially by an irritable bladder, than that by a more active use of the instrument, lithotrity should be finished in half the time. The patient suffered not the slightest after-symptom of any kind, feeling as comfortable as if nothing had been done, and passing urine only three or four times daily. The man was kept in bed only on account of the acute east winds.

Three-quarters of an ounce of phosphatic calculus had been thus removed without any inconvenience.

In a few days the operation was completed; with a final exploration of the bladder, which still remained irritable, even under the influence of anæsthesia. Two days afterwards, the patient being quite well, he got up at his own request. He continued under observation for a fortnight, daily taking exercise; then, no fragments having been found on carefully sounding the bladder, and being entirely free from stone symptoms, he left the hospital in good health. The total amount of phosphatic detritus, so far as it could be collected, was over an ounce in weight, and the original size of the calculus one inch and a half.

CASE 2. *Lithotomy (perineal) by the lateral operation.*—William P——, aged eighteen, had experienced symptoms of vesical calculus for a period of ten years. When admitted to the hospital (March 7th, 1887), sounding at once touched a stone, lying in the fundus of the bladder; it rang with a sound as if metallic, and was distinctly tuberculated under the point of the instrument, the stone measuring about one inch from before backwards, as indicated by the passage of the sound over its surface. I concluded that there was a hard mulberry calculus, and of more than average size. The bladder and urine were quite healthy. In this case the operation of lithotomy, and by the lateral method in the perineum, leaving the suprapubic operation out of the question, would be far more suitable than lithotrity.

On March 12th, after the previous case of lithotrity, I performed lateral lithotomy in the usual manner. But, having made the prostatic incision and seized the stone with some little trouble, as it slipped from the grasp of the forceps, I experienced a real difficulty in extracting the stone without bruising the neck of the bladder. Accordingly, I had recourse to an expedient which I strongly advocate in such cases. Passing a blunt-pointed scalpel along the inner blade of the forceps, held in the prostatic incision, I made a second rectangular or transverse incision outwards in the right half of the prostate, sufficiently to extract the stone with ease. This modification of the operation was seen to be necessary, not only from the size of the calculus, but owing to the projection of its rough surface beyond the blades of the forceps.

The after course of this case was noteworthy only on account of the absence of any unfavourable symptoms. No suprapubic pain ensued as from pelvic cellulitis, and the urine passed freely through the wound about six times in the twenty-four hours for the first two days. Thus, on the second day—usually a critical time—The report states: April 14th: urine from wound at 10 A.M., 2 P.M., 6 P.M., 8.30 P.M., 10 P.M., and 6 A.M. On the following (third) day urine was passed through the urethra and through the wound, and so on, alternating until the fifth day. Subsequently the urine again passed more and more through the wound; but from the eighth day onwards entirely per urethram. The perineal incision healed up from within, without any tenderness or fulness, and had completely closed in a fortnight. Recumbency still seemed advisable, to render the perineum firm and unyielding, the wound having been known to reopen in consequence of the patient being allowed to get up at too early a period; but the young man took gentle walking exercise in the quadrangle of the hospital for a few days, and then left quite well. The stone, a fine specimen of black mulberry oxalate of lime calculus, looked like a round rough piece of iron slag, and weighed nearly an ounce.

Choice of operation: lithotrity or lithotomy; lateral, median, or suprapubic.—Before proceeding to remove a stone from the bladder, certain clear and definite views must be held as to the *conditions* which should determine the kind of operation, seeing that the circumstances which lead to this selection will obviously affect, for better or worse, all the contingencies of difficulty and adverse consequences which are associated with the particular method, but which are referable rather to the questionable fitness of the case, and thence the prior judgment of the operator. In connexion with the relative merits of lithotrity and lithotomy, whatever method be adopted, no question can have more practical significance than with regard to the size and the density of the calculus, coupled with the state of the bladder and urinary tract throughout—the combination of factors which shall be more favourable for the performance and after safety of the one or the other of these operations. The wide difference of results in the hands of experienced operators may be thus explained, more than by circumstances incident to the individual skill of the operator.

Bigelow's method of rapid lithotrity has done much to place the crushing operation on equal terms with the cutting operation of lithotomy for the complete removal of stone from the bladder; but, if rightly interpreted in its full bearings on the question, this method has done even more to demonstrate the circumstances which should determine the surgeon's choice. The complete evacuation of stone from the bladder by a single operation of crushing, prolonged perhaps for an hour or more, as *compared* with the former method, by repeated crushings, each lasting only a few minutes, may be read in the light of a *crucial* experiment to test the tolerance of the urinary bladder for the free use of instruments or for the continued presence of stone fragments. The evidence in favour of prolonged instrumentation has not only reversed the judgment formerly held as to the supposed intolerance of the bladder for this kind of irritation, but has elicited the equally significant fact that stone chips remaining in the bladder, followed speedily by cystitis or aggravating the previous vesical inflammation, is the immediate cause of death after lithotrity. The choice of operation for the removal of stone must, therefore, be centralised in the *kind of calculus* with which the surgeon has to deal. In lithotrity, a *hard* calculus, ringing as if metallic when sounded, yields fragments more angular and irritative than those of a soft calculus—more provocative of cystitis. Unless the bladder can be most assuredly emptied of all such fragments, a hard calculus of uric acid or oxalate of lime had far better be removed by lithotomy. Of course the *size* of the stone is also an important consideration, but quite subordinate, I should say, to that of density, as a factor in lithotrity. According to my judgment, the crushing of an earthy phosphatic calculus, measuring by the lithotrite an inch and a half, would entail less bladder liabilities than the crushing of a flinty mulberry calculus of only half that size. The one squashes readily into grit as the operation proceeds; the other gives way with a sort of bang, falls into angular pieces, and then breaks into similar fragments. Any remaining chips which had perchance escaped evacuation would induce cystitis more surely than the whole amount of pulverulent matter into which the phosphatic stone had crumbled, mixing with the water into a mortar-like puddle in the bladder.

With relation to lithotomy, the *size* of the calculus is *the* element in the question which mainly determines the claims in favour of lithotrity. The dimensions of a stone may render it ill-fitted for extraction by any cutting operation. In *lateral* lithotomy, the extraction of a stone beyond a certain size, is attended with such bruising of the neck of the bladder as will almost inevitably be followed by spreading cellulitis around. On the other hand, a more than limited prostatic incision backwards might trespass beyond the fascial investment of the prostate, and lead to urinary infiltration, with the same result. But contusion of the vesical neck is more frequently responsible for a fatal issue. The *median* operation can offer only a limited access to the bladder, and allowing the extraction of a proportionately small stone, this method of cutting is out of the running, in comparison with lithotrity. Looking at lithotomy only from a stone-extraction point of view, it is here assumed that in either the lateral or the median way of approaching the bladder the path is well known, with its relations, and the operation skilfully performed. *Suprapubic* lithotomy provides for the removal of a large stone, of such size as could not be removed by lithotrity, however prolonged or repeated. But, having regard to the pathway of operation, experience has shown, and quite recently, that the bladder cannot be entered above the pubes always, without wounding the peritoneal reflexion, even when the bladder is raised by the fullest distension, almost to the point of bursting, and propped up from below by an equally distended Petersen's rectal bag. Then, again, the known risk of urinary infiltration has proved to be a not uncommon after-consequence of the suprapubic incision, and certainly should not be an after-thought in the mind of the surgeon who is about to operate by this route.

Apart from the kind of calculus, as determining the choice of operation, of less direct importance may be reckoned the state of the bladder and kidneys, cystitis depending far more on the continued presence of stone fragments after lithotrity than arising from this operation. The complete evacuation of the bladder would place the rapid method on

a level with any operation of lithotomy. So, likewise, nephritis or pyelitis, whether due to the extension of vesical inflammation up the ureters, or occurring from reflex vaso-motor influence on the kidney, is alike the expression of vesical irritation. The symptoms betokening renal irritation, by rigors, lumbar pain, with uræmic blood-poisoning, proceed from the bladder, and all the significance of kidney mischief is lost in the prior question of entire removal of the calculus from the organ below.

But when, in any case, the hardness of a calculus would be adverse to lithotrity—unless the operation can be completed, and the bladder be certainly emptied of all fragments, and when the size of the calculus places it beyond lithotomy, otherwise than through the perils of the suprapubic adventure,—can the old lateral operation of lithotomy be modified and adapted for the removal of a stone, whose dimensions may require further space than usual for its extraction, without any untoward consequences? The perineal incision itself will, of course, be sufficient; and the prostatic incision may be safely extended backwards to the very neck of the bladder, notching the elastic ring, but within the boundary of the fascial investment of the prostate; the incision, thus limited, admitting readily of enlargement, by a tunneling dilatation with the finger, without dividing or rupturing the elastic ring. But the opening thus formed by this well-defined incision and dilatation may be further enlarged to twice the size by a rectangular incision from the middle of the first towards the other side of the prostate. In a prostate of average dimensions the usual lateral incision may be one inch, admitting of the extraction of a calculus which shall weigh an ounce and a half; and the rectangular incision, in the middle of the right half of the prostate, having nearly the same extent—another inch,—will provide the additional space for the extraction of a stone double the size, should the necessity arise in this stage of the operation. The valvular opening thus formed gives, therefore, ample room for the passage of a calculus as large as may be met with. This *rectangular* incision is not the incision which was practised occasionally by Martineau and Liston, who divided the right side of the prostate downwards towards the right ischial tuberosity, forming, with the similar section of the left side, a double *lateral* section of the prostate. The objection to that direction of the second incision to the right is the liability of wounding the rectum, now that the prostate is not held up by the staff, and the bowel protected also by the finger, as when in the act of making the ordinary lateral incision alone in the left half of the prostate. The semilunar prostatic incision, by the "bilateral operation" of Dupuytren, has obviously a different shape, and the downward direction of the section on either side, in using the covered double-bladed lithotome, is very liable to touch the vasa deferentia or the seminal vesicles, and emasculate the patient. Notching the margins of the ordinary left lateral incision, obliquely, above and below the "quadrilateral section" of the prostate, advocated by Vidal de Cassis, is a procedure which involves no such risk; but nickings with the knife in those situations, to ease the forceps for the extraction of a large stone, might readily cut the fascial investment of the prostate above or the rectum below. The additional space afforded by the rectangular section passing transversely across the right half of the prostate is fully equivalent to that which is given in either of these ways, and is entirely free from any danger. It is easily accomplished. When, in the extraction of a large stone, the forceps is found to be fixed somewhat firmly in the ordinary lateral opening in the prostate, the second cut can be made by sliding a blunt-pointed knife along the convexity of the inner blade, and carrying it outwards, not downwards, in the middle of the right half of the prostate. If there be any doubt as to the bearing of the blade, a little traction with the forceps will make the prostate bulge forwards sufficiently to bring that part actually into view in a perineum of the ordinary depth. By this second transverse incision bruising of the vesical neck is prevented, the risk of urinary infiltration from a too free left lateral incision in the backward direction is avoided, and the extraction of the stone is effected without fracture and splintering in the bladder, or in drawing it through the prostate.

By the operation of lithotrity large stones of the hardest kind have been pulverised, and the bladder completely emptied. That operation may be credited in Freyer's practice with having thus got rid of calculi formed of uric acid and oxalate of lime, each weighing more than three ounces. But these are quite exceptional cases, and in the hands of an exceptional lithotritist. Success in crushing and evacuating such calculi might well place some other operators in mourning. The average lithotritist, tackling either of those hardened sinners, would certainly have left some portion of the enemy in the bladder; ay, and even after a second attack, an angular fragment or two might still be lodged. When the surgeon, who is about equally apt in crushing or cutting, has to encounter a big, brazen mulberry calculus, or its almost as formidable uric acid rival, instead of spending an hour and a half or longer in lithotrity, without then clearing out the bladder, I would recommend him to try lateral lithotomy, with the additional rectangular incision of the prostate to the right side, and capture the enemy in a few minutes.

I may take another opportunity of referring to the difficulties and dangers pertaining to lithotrity and lithotomy in the various methods of operation.

Connaught-square, W.

A MEDIAN LITHOTOMY.

By REGINALD HARRISON, F.R.C.S.,
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THE recent movement to revive the suprapubic operation for stone in the bladder, under somewhat altered circumstances, has been doubtless prompted with the view of diminishing the mortality connected with the removal of those stones from the bladder which cannot be effected by crushing, and of substituting an operation which is free from the difficulties and risks which, either rightly or wrongly, have been associated with lateral lithotomy. That there are grounds for possessing an alternative is evident from a study of some statistics and records of the latter operation. That the lateral method for stone in adults has been found to be a proceeding attended with a considerable degree of fatality, reaching in some instances, it is stated, to a death-rate of 35 per cent., there can be no doubt. Further, records of this operation show that the mortality has arisen very largely out of complications having an evident relation to the difficulties with which the operation was performed. For instance, a well-executed lateral operation where everything is straightforward is about the safest operation of any magnitude in surgery; and in proportion with the degree of deviation from the standard that circumstances render inevitable may its fatality be measured. In proof of this let me mention the chief early causes of death after lithotomy. Hæmorrhage, primary and secondary; cellulitis and peritonitis arising from damage done by the knife, as when the latter is allowed to miss or leave the staff and to pass behind or through the bladder, not mentioning the rectum; rupture of the urethra and failure to enter the bladder, as when these parts are telescoped by the finger of the operator; and, lastly, sepsis. With the exception of the last-mentioned cause, which is largely determined by the nature of the incisions made, probably all the others are avoidable, and seldom occur save in connexion with an operation the doing of which might be improved upon. Apart, however, from these difficulties and contingencies, there is a necessity for carefully considering our means of removing stones from the bladder by the frequency with which recurrences take place after lithotrity, even when the operation has been practised by experienced hands. Such recurrences have been recently stated as amounting to about 13 per cent.

When we consider the rarity of stone relapses after lithotomy, as compared with lithotrity, we have the best reason for critically studying the former operation with the view of rendering it simple and efficient. I think it will be generally admitted that the easiest and simplest method of entering the bladder, say for the purpose of exploring it with the finger, is that known as median perineal urethrotomy, or incorrectly as median cystotomy. By this plan the finger may be readily passed into the bladder without risk. As I have now practised this operation for the relief of cystitis, for the exploration of tumours of the bladder and prostate, for prostatotomy and prostatectomy, a very considerable number of times, I think my experience has

been sufficient to warrant this statement. But though the finger may thus be readily introduced into the bladder, as well as sounds and forceps, for further exploration, it will be urged that nothing of any size can be withdrawn with safety through such a limited opening. Even admitting the fullest amount of dilatation, a uric acid stone of half an ounce in weight could not be withdrawn without such an amount of dragging and tearing as to render a fatal result inevitable. But this exploratory opening, which is essentially the old median cystotomy, can be easily and safely adopted for the removal of larger stones—say, up to six-ounce urate or oxalate ones. The demonstration of this point may be regarded as the object of this paper. During the course of a number of operations, undertaken for the relief of symptoms due to a large prostate, I found it was quite feasible and easy to obtain as free an opening into the bladder by a median incision along the urethra and floor of the prostate, as by the ordinary lateral operation for stone. To effect this, the following additions to the operation known as median perineal urethrotomy for the exploration of the bladder are necessary. The finger having thus been passed into the bladder by the side of the staff, the opening is extended in the following manner. In the first place, the membranous urethra is slit up along its floor on the staff by a curved probe-pointed bistoury; in this incision may be included more or less of the perineum according to circumstances. Any bleeding vessel may be tied before proceeding further. The deep incision is then made by passing the curved probe-pointed bistoury by the side of the index finger well into the bladder. The staff may now be withdrawn. The blade of the knife is turned downwards towards the rectum, and the floor of the prostate divided from within outwards, commencing at the depression, which exists more or less in all male adults just within the orifice of the urethra. The incision thus made with the knife may be deepened down to the capsule merely by the firm pressure of the index finger downwards. In this way I have been able to make as free an opening into the bladder nearly along the median line of the body as a lateral lithotomy will permit of. This can be readily tested on the dead subject.

Many operators, I believe, will find this an easier way of opening the bladder freely for the purpose of removing stones, which, without the modification mentioned, could only be effected either by lateral or suprapubic cystotomy. It may be urged that the downward incision of the prostate necessarily endangers the integrity of the seminal openings. I am not aware that there is any reliable evidence in favour of such an objection, at least so far as causing a permanent inconvenience is concerned; at all events, I should have no hesitation in saying that, if an operator for stone feels that he can perform a median operation with the adaptation just described more safely than a lateral, he had better risk the seminal apparatus than the life of his patient. The operation described, though planned for and practised chiefly on adults, is capable of extension to male children, should the ordinary median lithotomy not suffice for the size of the stone, as the floor of the urethra and rudimentary prostate may be divided in a downward direction with a bistoury. I have sometimes heard it stated that the lateral operation in children is not only difficult, but dangerous, by reason of the risk there is of rupturing the urethra in endeavouring to enter the staff and dilate the canal, and then pushing on everything, including the bladder, before the tip of the finger. In this way there can be no doubt that the bladder has not been entered at all, and the way to it irretrievably lost. In connexion with this point, I would remark that such a risk is usually incurred by a misconception as to the mechanism of lateral lithotomy. When the groove in the staff has been exposed by the first incision, no attempt should be made to force the finger into the bladder until the point of the knife has been run along the groove towards the bladder for such a distance as to allow the finger of the left hand to be *put* into the bladder, and not pushed. The way into the bladder should be cut with the knife, and not bored with the finger. Where due regard is given to this point, it is almost impossible, even in a child of tender age, either to rupture the urethra or to push the parts in front of the index finger. So much stress has been laid upon dilatation by some authors as a necessary part of lithotomy that I have taken this opportunity of referring to it as an error that is sure sooner or later to be the cause of embarrassment to those who place any reliance upon it. Further, the deep incision I advocate in connexion with this method of performing median lithotomy assimilates it with the lateral proceeding not only in providing freedom of access to and exit from the bladder, but in being followed by an incontinent flow of urine which continues for some days. An ordinary median perineal lithotomy will not drain effectually without a drainage tube; this it is often desirable to dispense with, especially in chronically inflamed and ill-shaped bladders where the urine is offensive. This is an important safeguard against sepsis. However perfect the median operation for stone might be so far as the withdrawal of the calculus is concerned, I should set it aside unless it provided for incontinent urine drainage, which might be depended upon to last for at least some days. The vertical division of the prostate muscle was advocated by Vacca[1] at the commencement of the century, but chiefly in connexion with a recto-vesical operation which has now become obsolete. A reference to Vacca's plates will show that he made his incision through the floor of the prostate, a little to one side of the median line, with the view of avoiding the seminal openings. In the course of a number of operations on the obstructing prostate,[2] I soon became convinced that it was almost impossible to make a safe and satisfactory division of the prostate, whether normal or enlarged, from a median urethrotomy, except in a direction from within outwards as I have now described; and, further, that the full effects of such a section could not be fully appreciated as a means of free access into the bladder, unless it was accompanied with the division along its floor of the membranous urethra, as the latter structure, in conjuction with the bulbous portion of the canal, seemed to arch in the outlet from the bladder, and thus to restrict manipulations.

The advantages of the median method I have described may be summed up as follows: 1st. That an incision is made into the bladder along the antero-posterior axis of the outlet from the pelvis which gives as much, if not more, room for manipulation as the lateral incision. 2. That with such an incision the liability to hæmorrhage is less, whilst the facility for getting at any bleeding point is increased. 3. That the movements of the knife in one hand are from the beginning to the end of the operation under the direction and control of the index finger of the opposite hand. 4. That it entirely removes the dragging and tearing of the old median operation should the stone prove a large one, and therefore it adapts the median procedure to a wider range of stone, as well as of tumour cases. 5. That, like after lateral lithotomy, a similar state of temporary incontinence of urine is provided for, and thus thorough drainage is secured by a dependent opening, should this be desirable.

I would observe that we have been too much accustomed to draw our ideas relative to the section of the prostate in lithotomy from the contracted appearance presented by the part after death, and which rarely, if ever, presents itself to the lithotomist. As a matter of fact, unless the bladder is absolutely empty, the prostate is disposed as a circular cone of muscle with its apex directed forwards. In connexion with the making of the deep incision through the prostate in a direction from within outwards on a guide, it would appear from the surgical lectures of Dr. A. Monro of Edinburgh that Frère Come, a successful lithotomist of the last century, was in the habit of incising in this way, thus avoiding many of the dangers which befell his contemporaries. I will now illustrate some of these points by the following case, where the recovery of the patient, notwithstanding his feebleness and complications, was remarkably rapid and in other respects uneventful.

C. B——, stated to be fifty-six years of age, though looking about seventy, was admitted into the Royal Infirmary on March 9th, 1887, having been sent to me by Dr. M. J. Campbell. He had previously been in hospital for what was stated to be an impassable stricture of some years' standing. He presented the appearance mentally and physically of a feeble old man. I found him suffering from a very narrow long stricture in front of the bulb, a false passage of some length and far more easily entered than the natural canal, a stone in the urethra behind the stricture, one or more stones in the bladder, and chronic cystitis. He passed his urine incontinently in drops, and his clothes and bedding were constantly soaked with ammoniacal urine. Having regard to his general feeble condition, as well as the varied nature of his symptoms, it was difficult

[1] Della Litotomia. Pisa, 1825.
[2] Trans. Internat. Med. Congress, Copenhagen, 1884.

to determine what was best to be done, especially having in view the probability of his kidneys and ureters being also involved. A free median incision into the bladder, such as I have described, seemed to offer the best solution with the least risk. Further, should the strictured urethra prove such as to render a permanent median perineal opening desirable, this could be provided for by the median operation. On March 29th, Dr. Paul Rodet, of Vittel, and Dr. Wilson, of Boston, U.S.A., being present, the patient was etherised, and the stricture divulsed so as to allow the passage of a medium-sized grooved staff into the bladder. He was then placed in the lithotomy position, when I performed a median urethrotomy, and extracted a uric acid calculus about the size of a cobnut, which was wedged in behind the stricture. I then slit up the floor of the membranous urethra, including a mass of cicatricial tissue which constituted the stricture. Passing my finger on into the bladder, I then divided the somewhat large prostate directly backwards with a curved probe-pointed bistoury from within outwards, completing my incision to the utmost limits of the prostatic capsule by the pressure of my index finger. In this way I had made an opening into the bladder in the median line which would readily admit my three fingers. Forceps were then passed into the bladder, and I extracted two calculi, one uric acid and the other phosphatic, about the size of cobnuts, and in addition a considerable quantity of soft, putty-like phosphatic incrustation. No vessels were tied, and the patient certainly did not lose an ounce of blood, an object which I was desirous of obtaining. I could have removed through this opening, with ordinary lithotomy forceps, a hard stone of at least six ounces in weight. As a precaution against any bleeding following, a large double drainage tube was introduced, and the wound in the perineum above and below it closed with sutures so as to make the tube fit with some tightness. The patient was then removed to bed, the whole of the proceedings only occupying a few minutes. The patient's convalescence has been uninterrupted, and on April 10th he commenced to get up and move about. The urine for the first eight days was passed incontinently by the wound, the drainage tube being removed on the third day. On April 14th he was able to go out for exercise, as control over the urine, though almost entirely passed by the perineal wound, had in a great measure returned. I think it is extremely probable that the perineal opening will have to be retained as a permanent vent for the urine, as the condition of the urethra in front, from long-standing stricture, is unpromising. A medium-sized whip bougie is passed daily along the whole length of the urethra. Apart, however, from this consideration, the case may be taken as fairly illustrating this method of operating and the circumstances under which it might be undertaken. Here it was the only way of getting over the difficulties I had to face without exposing the patient to far more serious risk.

As already stated in the columns of THE LANCET,[3] I have no reason whatever to find fault with the operation of lateral lithotomy. I have now practised it considerably over one hundred times, with no mortality in children, and with a death-rate in adults of about one in twelve. On the other hand, understanding why lateral lithotomy can never be regarded as universally acceptable, I think it is desirable that we should be provided with efficient alternatives.

Liverpool.

THREE CASES OF SUPRAPUBIC LITHOTOMY.

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FOR the purpose of contributing to the number of modern cases of suprapubic lithotomy, I have written out the following notes, and added a few remarks suggested by my experience.

CASE I.—J. H——, aged fifty-one, a publican from Oldham, was sent to me in June, 1884, by Dr. Lacey, suffering from stone in the bladder. He declined operation. The following month he again called and produced a small calculus which had been expelled per urethram, stating that all his symptoms had immediately disappeared. Albumen, which had been present in the urine formerly, was now absent. I neither saw nor heard anything of him again until Jan. 29th of this year, when he was again sent to me by Dr. Lacey. I observed a very marked change in his appearance. From being a fine, stout, and powerful man, he had become flabby and feeble, short of breath, and affected with a hacking troublesome cough. He had all the characteristic symptoms of stone in the bladder, with almost constant desire to micturate. He was admitted into the Surgical Home, Greenheys, on Feb. 3rd, 1886, and three days afterwards an unsuccessful attempt was made to crush the stone; for although the calculus was easily and frequently grasped by the largest and most powerful lithotrite, it was evident that the instrument was not constructed for so large a stone, as the screw gear did not come into action when the blades were fully separated. It was decided to postpone any further operation for some days, and in the meantime decide between the merits of perineal and suprapubic lithotomy. On the evening of Feb. 9th, he contracted a chill whilst returning to bed after a hot bath, and on the following morning when we (Mr. Southam, Dr. Lacey, Dr. Thorburn, and myself) assembled to operate, his temperature registering 102·4°, a further postponement of the operation was naturally our first determination, but this was finally abandoned. Suprapubic lithotomy having been decided upon, the operation was conducted in the following manner:—The patient was placed on the table in a horizontal position and the A.C.E. mixture administered. The pubes were shaved. A No. 12 silver catheter was introduced into the bladder and the urine withdrawn; twelve ounces of a weak solution of boracic acid were injected into the bladder and the catheter withdrawn, and the base of the penis ligatured with a soft No. 8 elastic indiarubber catheter. An indiarubber bag, capable of holding sixteen ounces of fluid, well lubricated with vaseline, was introduced into the rectum above the sphincters and injected with twelve ounces of water. An incision was made in the median line of the abdomen, commencing three inches above and terminating at the upper border of the symphysis pubis. A dissection was made between the recti, and through the transversalis fascia down to the perivesical fat, and this separated, the handel of a scalpel being principally used for this purpose. At this stage of the operation some doubt was entertained as to the identity of what was supposed to be the bladder, which had in reality ascended into the wound and overlapped the symphysis; this, however, was immediately corrected by the reintroduction of the catheter, without allowing any fluid to escape, and by projecting the beak above the symphysis. The catheter was removed, and the ligature again tightened. The bladder was then punctured, without, unfortunately, first taking the precaution of securing it, either with a pair of forceps, or, still better perhaps, with two ligatures passed at suitable intervals through the entire thickness of the presenting surface. This was an oversight which ought never to have taken place, as all the fluid commenced to stream out and the bladder to collapse and sink out of sight, and it was with no little uncertainty the bladder was again picked up and the puncture found. Had the finger instead of the eye been relied upon under the circumstances, it is conceivable that lamentable results might have ultimately followed through detaching the cellular tissue surrounding the neck of the bladder in the endeavour to recover the lost opening, which would have afforded every facility for the infiltration of urine. Having recovered the bladder and secured the opening with artery forceps, scissors were introduced, and by expanding the blades the incision was enlarged longitudinally, sufficiently to admit one and then a second finger. The stone was at once felt and easily removed by means of an ordinary pair of lithotomy forceps. After the bag in the rectum had been removed the operation was completed. Nothing further was done or required, in a surgical sense, during the nine days the man lived. The urine, which was copious, escaped through the wound and was absorbed by pads of absorbent wool conveniently arranged below the wound. No excoriation followed or threatened. No urine passed by the penis, and neither catheter nor drainage tube was used after the first few hours. The patient, who was almost doomed to succumb from the commencement, died from double pneumonia, which was evidently in the incipient stage prior to the operation. The stone was composed of uric acid. It weighed 3½ oz., and measured 2½ in. by 2 in., or 7½ in. in circumference.

CASE 2.—J. W——, male, aged forty-two, was admitted to

[3] April 10th, 1886.

the Manchester Royal Infirmary on Dec. 8th, 1884. He is a healthy-looking but slightly made man, and gives a good account of his family history and general health up to twelve years ago. Since then he had frequent attacks of renal colic, which had, however, usually yielded to ordinary methods of treatment. Eighteen months ago he first experienced pain at the end of the penis, and he passed some gravel. Since then there have been occasional attacks of renal colic, and he has passed gravel on several occasions. He has also been troubled by frequency of micturition, which often disturbed him six or seven times in the night. His pain has always been aggravated by any shaking. During the last nine months he has often had hæmaturia. There have been no symptoms of cystitis. On admission, he complained of the above symptoms. The urine was acid; sp. gr. 1015; it contained no albumen and no deposits. The bladder was explored by a Thompson's sound, and a stone was found, the longest diameter of which appeared to be about three-quarters of an inch. On Dec. 12th, 1884, the operation of left lateral lithotomy was performed in the usual manner, the only difficulty encountered being in the extraction of the stone, which was oblong in shape, being about ¾ in. long and ½ in. broad. No tube was introduced into the wound. The only incident in the progress of the case was that the wound became filled with blood clot, remaining in this condition for some forty-eight hours, and necessitating the use of the catheter to relieve the bladder. On the second day urine commenced to flow through the wound, and thereafter continued to do so. The wound healed well, and when the patient went home on Jan. 5th, 1885, was almost healed, although a small quantity of urine still came through it. This soon ceased after his return home, and he remained well. He was readmitted on March 31st, 1886, complaining of shooting pains in the glans penis and perineum, especially at night or during exercise, this pain being most intense for about five minutes after micturition. During the act of passing urine there was frequently sudden stoppage with pain, but the flow soon recommenced. Exploration of the bladder showed the presence of a stone, and on rectal examination there was found considerable enlargement of the prostate. The patient was much weaker than when last admitted, and looked thin and worn. On April 2nd I attempted to perform the operation of suprapubic lithotomy, in the presence of Mr. Chiene of Edinburgh, Mr. Lund, and the members of the surgical staff of the Manchester Infirmary. On attempting to pass a catheter into the bladder with a view to injecting it, the instrument entered a false passage, and all attempts to introduce it proved futile. Being unwilling to abandon the operation, I placed one of Sir H. Thompson's bags in the rectum, which was distended with ten ounces of water. A vertical incision, three inches long, was now made in the linea alba, over the pubes, and the structures being dissected down to and through the fascia between the recti, the bladder was sought for. As, however, it was found impossible to define this organ without running a great risk of injuring the peritoneum, the completion of the operation was postponed, the wound being thoroughly dusted with iodoform and left open. The wound continued healthy, but the patient suffered much from pain in the bladder, owing to his cystitis, for which was prescribed a mixture of hyoscyamus, buchu, and liq. potassæ. The pulse was very rapid, irregular, and so weak as to be at times scarcely perceptible. On April 10th, eight days after the first attempt, the patient was again placed under chloroform, and an attempt made to introduce a catheter into the bladder. This again failed, but after some trouble a ferret was passed, and a catheter, having an eye at the extremity, was slipped in over it. The bladder was then injected with six ounces of boracic lotion, and the rectum distended as before. The divided structures being held aside, the bladder was now, without difficulty, seen presenting in the wound, and was secured by passing through it on each side a ligature held in a handled needle. Between these the bladder was opened with a knife and a director, and the finger and then a pair of lithotomy forceps introduced, and the stone grasped and extracted without difficulty. The wound was left open, dusted with iodoform, and plugged with absorbent cotton wool, which was changed every half hour. No catheter was placed in the urethra, nor a tube in the wound. The wound remained absolutely healthy-looking, the urine which came through it being absorbed by the cotton wool. The patient's weakness, however, increased, the pulse being always rapid, weak, and irregular, often imperceptible. Stimulants were administered a week after the operation; then a low form of delirium set in, with much restlessness. This delirium continued almost constantly for a month, but eventually passed off entirely. Urine came away entirely by the wound until May 1st, three weeks after the operation, when, for the first time, some passed per urethram. After this the wound began to close up rapidly, and was entirely closed by May 16th. On the 27th the patient was discharged well, and has since reported himself as in good health.

CASE 3.—J. M——, male, aged fifty-three, came under my care about the end of April, 18[illegible], giving the following history. In August of last year he had several rigors, followed by the discharge of dark brown urine with frequent micturition and pain at the umbilicus. He was then attended by Mr. Cartmel. Occasional hæmaturia continued, and especially after any jolting there was pain at the umbilicus and passage of blood in the urine, but never any pain in the bladder or penis. On one or two occasions there was, during micturition, a sudden stoppage in the flow, causing much straining and pain. When I saw the patient I found a stone in the bladder, and attempted to perform lateral perineal lithotomy, but without success, owing to the depth of the perineum rendering it impossible to reach the calculus. With a view to performing suprapubic lithotomy, I admitted him to the Manchester Royal Infirmary on May 22nd. On admission he presented the same symptoms as before the first operation a week previously, and he had, of course, an opening from the perineum into the urethra. The general condition was very good. The operation was performed on May 23rd. On examination the bladder was found to be unusually large, dulness extending to within two inches of the umbilicus. Neither the bladder nor the rectum was distended. A staff was introduced into the bladder (through the perineal wound) and its point rendered prominent just above the pubes. An incision 2½ in. long was then made in the middle line above the pubes, and carried down until the bladder was exposed on the end of the staff. It was here torn open, and the small opening thus made enlarged by stretching with the fingers. There was then no difficulty in introducing two fingers and seizing and extracting the calculus, which was encysted in a pouch in the anterior wall. The stone was uric acid, oval in shape, flattened on the sides, and about 1½ in. long by ¾ in. wide. The wound, which gaped considerably, was left open and painted with a mixture of compound tincture of benzoin and an ethereal solution of iodoform, then dusted with iodoform and stuffed with iodoform gauze. The patient was allowed to lie on his back, the whole of the lower part of the abdomen being covered with absorbent cotton wool, which effectually soaked up the urine as fast as it came through the wound, so that no irritation of the skin was caused. On June 4th urine ceased to flow through the perineal opening, but still came freely from that above the pubes. On June 9th the urine was found to be alkaline, and there was a phosphatic deposit on the surfaces of the wound, which gave some trouble, and which was met by the internal administration of ammon. benzoas, with local use of dilute hydrochloric acid. From this date the patient's condition became gradually worse. The urine remained alkaline, and he developed the "typhoid" symptoms of surgical kidney. During August he complained of pain in the left shoulder, probably pyæmic. The temperature was high and irregular. To the end all urine passed by the wound, the flow per urethram never being re-established. The patient died on August 31st.

Remarks.—The fact that two out of the three cases of suprapubic lithotomy recorded proved fatal must not be regarded with undue prejudice against the operation. I am satisfied that in Cases 1 and 2 the patients would have died whichever operation had been selected. The size of the stone in the first case left no alternative, and in the third case suprapubic lithotomy was only resorted to after perineal lithotomy had failed. A practical lesson can be learned from Case 2. The man had undergone perineal lithotomy two years previously, and his recovery was complete in nineteen days, whereas after suprapubic lithotomy forty-eight days were required to gain convalescence. The three cases illustrate three conditions which render suprapubic lithotomy the only operation available: the large size of the stone in one case, an impediment to the introduction of a staff in another, and an encysted calculus in the third. During the last two years I have had an unusually large number of patients suffering from stone in the bladder, and these are only instances in which I have felt warranted in adopting the suprapubic operation, as I am

at present quite satisfied with the success which I have had during twenty years' practice from perineal lithotomy and litholapaxy. I regard rectal distension as quite unnecessary, and not unattended with danger; in Case 1 the use of the rectal bag was followed by profuse hæmorrhage and subsequent muco-purulent discharge. Pending much stronger evidence than that which has hitherto been advanced in favour of the high operation, I shall continue to crush all stones capable of being crushed both in males and females, either in youth or adult life. I shall perform perineal lithotomy in cases not amenable to crushing, unless associated with some complication rendering it impossible to complete that operation, and I shall reserve suprapubic lithotomy for such cases, and for stones estimated to exceed three ounces in weight. These conclusions will, I believe, be generally shared by surgeons who have had large experiences in the various operations for the removal of vesical calculi.

Manchester.

RESULTS OF CICATRISING PROCESSES IN THE NEIGHBOURHOOD OF THE PORTAL FISSURE.

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IT is well known that structures which derive their blood supply from vessels that pass through a cicatrix, or that traverse the area of a cicatrising process, are liable to undergo atrophy, and that this is due to the contractile property of the cicatricial tissue causing narrowing and diminution of calibre of the supplying vessels. The facts have been observed on the surface of the body, and, indeed, have been turned to good account in some instances in the practice of surgery. But it is not so generally recognised that similar secondary results may under certain circumstances follow cicatrisation occurring in internal parts, and prove serious drawbacks to the healing process. The events that take place here, and their relation to one another, are out of the sphere of direct observation, and the opportunity of tracing them by other methods is comparatively rare. Conceiving that the two cases about to be related afford such opportunity, I propose in this paper to invite attention to the subject, and to submit some pathological considerations in connexion therewith.

In the case of a small superficial ulcer of the stomach, the loss of mucous membrane at the spot with a trifling scar remaining is about the worst evil that can ensue. But it is far otherwise with a large, deep, and long-standing ulcer occupying the usual situation of the "chronic ulcer of the stomach." Besides stenosis of orifices, deformity of the organ is commonly noticed by writers as resulting from the cicatrisation of such an ulcer; it is rather with indirect, but not less important, results of the same that we are now concerned. It has happened to me in the course of my hospital practice to have a case of the latter class repeatedly under my care during a period of nine years extending from the first commencement of symptoms to the fatal termination, and then inspection of the anatomical condition was obtained. The following is a summary of the clinical history.

The patient, A. M——, was a lady's maid, aged thirty in January, 1866, when she was first admitted into hospital. She was moderately tall, of slender figure, and of pale complexion; she had two phthisical brothers, but said that her own health previously had been good. She had been suffering for three weeks from constant and severe vomiting after food, and from pain at the epigastrium, which was relieved, but not removed, by the vomiting; there was tenderness on pressure in the same locality. Her pulse was small and weak, her tongue pale and moist, her bowels sluggish, and her catamenia scanty. Under absolute rest, restricted diet, and nitrate of silver in half-grain doses, with a blister to the epigastrium, and an occasional enema, the symptoms speedily subsided; and with the substitution of iron and hydrocyanic acid, and a more liberal but still regulated diet, she made good progress, so that in the April following she was discharged "convalescent." In September, 1868, she was readmitted. She stated that shortly after she left the hospital she had a return of the symptoms, had to give up her situation in consequence, and had not been well since. The epigastric pain was very severe, and disturbed her sleep. Her catamenia had been absent for three months. She was put upon similar treatment. She vomited only two or three times during her stay, the pain subsided, the catamenia reappeared, and she was discharged convalescent in the ensuing December. She now had some months of comparative, though not entire, freedom from complaint, and resumed domestic service. In the autumn of 1869 she caught cold at a catamenial period, whereupon this function became completely suppressed. The epigastric pain returned, and she soon began to lose flesh and strength. She attended as an out-patient, but, no benefit accruing, she was admitted into the wards again in May, 1871. She was now in a much more pronounced state of anæmia than heretofore. Epigastric pain, increased after food and disturbing her nights, was still her chief trouble, and there was the local tenderness on pressure as before. Omitting on this occasion the nitrate of silver, she had iron given her at once, and solution of sulphate of atropine was used hypodermically as an anodyne. She soon responded to this treatment, gained nearly a stone in weight in six weeks, and went out convalescent in July following. In February, 1872, she returned, stating that three weeks previously she had vomited blood to the amount of one pint. She was very anæmic, and there was marked exacerbation of the old symptoms. Her catamenia had now been absent for sixteen months. The sickness increasing, in spite of the treatment which succeeded on the preceding occasion, she was given nitrate of silver again in half-grain doses, and with good result. On resuming the iron, flying blisters were applied to the epigastrium and dressed with morphia ointment. Although bad fits of epigastric pain not unfrequently recurred, and she had now and then sickness, her appetite increased, she began to get up a little, she improved considerably in looks, and in April following was discharged relieved. Her history for the next two years and upwards was one of attendance off and on as an out-patient. She was admitted into hospital for the fifth time in September, 1874. Her condition at this date was urgent; her pallor and emaciation were both alike conspicuous. She had had a short time previously a recurrence of vomiting of blood; her pain in the epigastrium, increased after food as before, went right through to her back and interfered greatly with her sleep; she generally vomited after her meals, though at various intervals, and this brought a little ease. The existence of considerable dilatation of the stomach was now detected, and the vomited matters were found to contain sarcinæ. There was no response to treatment that formerly succeeded, nor to some other that was tried. Hypodermic morphia as an anodyne, with or without atropine combined, gave but very temporary relief. She was almost incessantly harassed with pain and sickness. On Oct. 16th she vomited dark grumous matter in which red blood discs were abundant. There were some little fluctuations in her condition afterwards, but on Oct. 30th she had similar hæmorrhagic vomit with melænic stools, and, this persisting, she gradually became exhausted, and died on Nov. 1st.

Necropsy, thirty-three hours after death.—The stomach was found occupying the area traced out upon the abdominal parietes during life. It had several adhesions. First, it was inseparably adherent at the small curvature to the under surface of the right lobe of the liver by dense opaque neoplastic tissue, which occupied for the most part the small omentum. Another adhesion was to the pancreas and duodenum in its inferior transverse portion; and a third was to the left kidney, where also a very dense fibro-cartilage-like layer was present. There were slight adhesions to the spleen and to the diaphragm. The stomach at the same time exhibited a well-marked hour-glass contraction. The effect of the latter, as appeared on laying open the interior, was to convert the pyloric segment into a separate sac, which was entered by a quasi-orifice of about the size of a crown-piece. A large irregular stellate cicatrix was discovered at the spot near the small curvature where externally was the dense adhesion to the liver; two or three small superficial ulcers were present near it. The mucous lining of this part was much puckered. At the fundus corresponding to the kidney adhesion was a large somewhat oval-shaped ulcer; it was between four and five inches in length; its floor was constituted of the peritoneal coat, shreddy débris of muscular fibre, and some vessels traversing it. Its margin showed no trace of any reparative action, nor did that of any of the smaller ulcers present. There were several little deposits of melanic pigment in the vicinity

of this ulcer, with some increased vascularity of the mucous surface, and sundry small ulcers and erosions. The pyloric segment, which, as before observed, formed a separate compartment, included the right half nearly of the great curvature, and was the healthiest portion of the organ, being quite free from ulceration. The pylorus was normal. The total capacity of the stomach was greatly augmented; it was generally in a state of chronic catarrh, and it contained some of the melænic matter which was vomited during the last days of life, but no coagula. The duodenum was considerably dilated and contorted, the adhesion of the stomach to it just at its termination having apparently produced some constriction of the gut there; it also contained melænic matter. The liver had some slight adhesions of its convex surface; its texture was so friable that it broke under the smallest pressure—indeed the organ could not be handled without its giving way; the texture was also dry and granular. It weighed 32½ oz. There was little or no bile in the gall-bladder. The spleen weighed 7 oz., and was pulpy. Except an old adhesion of the upper lobe of the left lung, there was nothing noteworthy elsewhere. On closer examination of the gastro-hepatic adhesion, it was found that the hepatic artery and some branches of the coronary artery lay very much in the focus of the dense neoplastic tissue, and the hepatic artery was distinctly observed to undergo an abrupt diminution in its calibre.

Proceeding now to remark on the pathological events in the foregoing case and to trace their connexion, the cicatrix found in the patient's stomach is obviously the first thing to claim attention. The characters of this cicatrix clearly denote that the pre-existing ulcer was a large one, and that in its extension in depth and progress outwards, having set up adhesive inflammation in the peritoneum, it came to have a thick floor of new tissue, if, indeed, it did not actually invade the contiguous portion of the liver. From the clinical record it is hardly less evident that the ulcer was one of long standing, and in the process of its healing underwent interruptions and relapses. The marked hour-glass deformity of the organ itself attests the magnitude of the lesion and the abundance of contractile cicatricial tissue. Secondly, we observe that, although there were several small ulcers elsewhere in the stomach, and one pretty large one, there was no appearance of reparative action in any of them; whence, I think, we may infer that these several ulcers were not in existence when the one above referred to cicatrised, but must have originated at a later period. Thirdly, we find that the hepatic artery and certain branches of the coronary were for a portion of their course involved in the dense neoplastic tissue which united the stomach and liver together in the site of the same cicatrix, which occupied, in fact, the small omentum. In seeking to understand how this came to pass, we must, I think, bear in mind that, besides the cicatricial fibroid tissue repairing the breach in the gastric wall, there were the products of the inflammatory process excited in the adjacent serous membrane, and rekindled with every relapse of ulceration; so that, with exuberant plastic material, the ultimate result, when at length reparation was consummated and the contractile property of the new tissue had come fully into play, would be a lumpy mass in which the normal relation of parts would be very much disturbed and the anatomical detail difficult to make out. The hepatic artery, however, was unmistakably identified, and it was found to be abruptly obstructed. Assuming that the liver is dependent upon this artery for its common nutrition, its condition corresponded; it was much under weight, and its texture was so friable, its cohesion so impaired, that it could not be handled without giving way. But, in reference to the secondary ulcers observed on the mucous surface of the stomach, and which showed no reparative action, may we not conclude that they owed their origin, in part at least, to a similar constriction of the branches of the coronary artery causing impaired nutrition in the sphere of their distribution? Our next point would seem especially to favour this conclusion. Fourthly, the portion of the stomach included within the pyloric sac (as, for convenience sake, we may call it) was found to be entirely free from ulceration; it was the healthiest portion of the organ. Now, this, we know, is just the portion that receives its blood supply, not from the coronary artery, but from the gastro-duodenalis, a branch of the hepatic artery, given off before this latter enters the small omentum, and therefore in the present instance before it was subjected to any constricting influence.

(To be concluded).

THE OCCURRENCE OF MENORRHAGIA OR METRORRHAGIA DURING THE FEBRILE STATE.

BY ALFRED MANTLE, M.D.

IN bringing before the notice of the profession the subject of menorrhagia or metrorrhagia as occurring during a febrile attack, I may at the outset say that my purpose in doing so is for the consideration of the treatment of such cases when the circumstances of some demand treatment. It is necessary to make this proviso, because most certainly the majority of cases of menorrhagia or metrorrhagia occurring during a febrile disease require no treatment; for the loss of blood may be considered to have a salutary effect upon the disease, and nature is probably doing what the practitioner of a generation ago considered the right course of treatment in all febrile diseases.

It is not an infrequent occurrence for zymotic diseases to be ushered in with hæmorrhage. This is frequently observed in the young when scarlatina or measles is making its appearance, at which time the hæmorrhage is most often seen to take place from the nasal mucous membrane. In older patients epistaxis or hæmatemesis is occasionally observed at the outset or early in the course of the fever; whilst in others—and this is particularly the case with measles, scarlatina, small-pox, typhus, typhoid, yellow, and intermittent fevers, and sometimes in pneumonia—the hæmorrhage shows itself from the mucous membrane of the uterus. In some cases this may mean nothing more than the normal process of menstruation taking place, which may or may not have been hastened a few days by the pyrexial attack, and the amount of blood lost may not necessarily be in excess; but in the strong and plethoric, and particularly in small-pox, typhus, typhoid, and yellow fever, the loss may sometimes be excessive and perilous, demanding active treatment. In other instances the hæmorrhage is quite unassociated with the normal menstrual act, when such cases may be said to be ordinary cases of uterine hæmorrhage or metrorrhagia induced by the febrile condition. I believe, however, that by far the largest number of cases of uterine hæmorrhage occurring during a febrile disease take place at or near the proper menstrual period, the circumstances being favourable to an excessive loss of blood. In considering what conditions are favourable to the development of menorrhagia or metrorrhagia during such an attack, we should remember that in the early stages of fever we have a quickened pulse with increased arterial tension. Incidentally, I may remark that in normal menstruation we have increased arterial pressure with slight pyrexia. In the uterus we have an organ with an unusually good blood supply, and, moreover, it is the only organ in the body from which blood escapes normally as a physiological process. With an increased vascular tension, it is only what we might then expect for blood to escape more freely from the mucous membrane, which probably feels and is most influenced by the increase of arterial pressure. A yet stronger factor, however, is probably at work in the causation of hæmorrhage in the febrile state, and it is *the alteration in the character of the blood.* What these alterations consist of we know as yet little or nothing; but whilst it has been said that in some fevers there is an increase in the fibrin-forming constituents of the blood, undoubtedly in others there is a deficiency in these elements, and consequently a marked fluidity and want of coagulability is observed. I believe this to be the case in many of the zymotic fevers.

That the want of the properties of coagulation in uterine hæmorrhage is not explained by its being menstrual blood, and due possibly to the action of the acidity of the vaginal mucus, is proved by the fact that blood coming from the intestinal mucous membrane, or which has been abstracted by the operation of venesection, has the same characters. Trousseau, when speaking of intestinal hæmorrhage during enteric fevers, says,[1] "At the necropsy of persons who have died of enteric fever, we often find bare mesenteric vessels at the bottom of the intestinal ulcerations. Hence it might be supposed that these hæmorrhages are attributable to the rupture of a mesenteric vessel during the process by which

[1] Clinical Medicine, vol. ii., p. 332.

the furuncular core is eliminated. Still, for the most part, if not always, this is not what occurs. Blood is exuded by the mucous surface exactly as it is in hæmatemesis and epistaxis, as well as in many other similar circumstances. The immediate cause of this sanguineous exhalation is an essential change in the blood, which is in a dissolved state—a fact you can verify by examining the blood abstracted from patients in our hospital wards.....This particular condition of the blood is seen in a very high degree in the hæmorrhagic putrid fever, and in yellow fever. In scarlatina, diphtheria, measles, and small-pox the blood is also generally in this dissolved state, and to it are attributable the intestinal, renal, and nasal hæmorrhages met with in them. So far is ulceration of the intestine from being a condition essential to the production of hæmorrhages, that they often come on at a period of the disease very far removed from that to which ulceration belongs."

The difficulty and sometimes impossibility of stopping bleeding in fevers was frequently experienced in the days when venesection and the application of leeches were much resorted to in their treatment. Only three years ago I was called into consultation with a practitioner of the old school, who, having applied ten leeches to the chest of a child suffering from pneumonia, produced hæmorrhage which was quite uncontrollable, and proved fatal. In these changes of the normal characters of the blood, together with the increased arterial tension, lies the explanation of the profuse menstrual discharge, or the occurrence of hæmorrhage apart from menstruation, during a febrile attack. If the normal menstruation has not taken place recently, and should it not appear during the earlier stages of the fever, in all probability it will not take place during the after progress or convalescence of the disease; and if it should, the arterial pressure being then lessened, the loss of blood may be diminished rather than increased; but occasionally uterine hæmorrhage, either as menorrhagia or metrorrhagia, does appear as a sequel to fevers, when we may consider it as probably due to the changes in the blood alone.

I shall now briefly relate particulars of two cases of menorrhagia which occurred respectively during typhoid fever and small-pox, and which, I may add, are the only two cases I have witnessed requiring treatment.

In October, 1884, I was called to attend a lady, aged forty, the mother of five children, who had been particularly strong and healthy. She had been at a picnic eight days before, when she got her feet very wet. She had since had a good deal of shivering, and for three days previously had suffered with severe neuralgia, for which I was consulted. I found her pulse very quick, and was convinced that the neuralgia was only a symptom. It was evening, and the temperature was 105°. There was a slight pleuritic rub heard on the left side, and pain was complained of; the abdomen was somewhat distended and tender, and there were some ill-defined lenticular spots of a rose colour, but no diarrhœa. Next day the bowels were very loose, the stools being of a pea-soupy character. The morning temperature was 104·6°, and the evening 104·8°. I diagnosed the case to be enteric fever. Three days afterwards I was informed that menstruation had taken place. I had been consulted by this lady two months before with reference to the menstrual loss being more than usual; and finding great regularity had persisted for five years, since her last child was born, and no history of miscarriage, whilst other symptoms were complained of, I considered the hæmorrhage due to the menopause. The following day (being, as far as I could judge, the twelfth day of the disease) the morning and evening temperature were nearly alike; the diarrhœa had ceased, but I learned that the discharge of blood was considerable. There was low muttering delirium almost constantly. Next morning, finding the patient considerably weaker, I became anxious about the loss of blood; and, seeing the enormous quantity of dark liquid blood which, according to my orders, had been saved, having been wrung out of the diapers, I determined to administer hæmostatics. Full doses of ergot and gallic acid were given at frequent intervals, also champagne and nourishment. My evening visit found the patient's temperature slightly lower, the pulse greatly softened, but the hæmorrhage quite as free. I was anxious for someone to share the responsibility of the case with me, and at the friends' wish I asked Dr. Gibb to consult with me. Next morning, finding the usual hæmostatic measures of no avail, tincture of digitalis was given every three hours, cold applications were applied to the vagina, and I remained with my patient most of the day. Eventually I was compelled to plug the vagina, after which no hæmorrhage ensued. My patient, however, sunk into a collapsed state; a clammy sweat covered the body, which was cold. I stayed with her the whole night, and, by applying warm bottles and bricks around the body, and administering stimulants and food very freely and frequently, the temperature was recovered. A good reaction taking place, and no recurrence of hæmorrhage, she gradually improved, and, with the best of skilled nursing, made a good recovery. I should scarcely like to estimate the amount of blood lost, but it consisted of several pints of a dark liquid blood, which did not coagulate. The difficulty in this case was, in the first place, to know when to take active measures to stop the hæmorrhage; and, secondly, to find remedies to accomplish this, for all save that of plugging seemed useless.

The only other severe case I have met with was that of a woman, the wife of a respectable tradesman, who had small-pox. She was at the time suckling an infant. On seeing the nature of the disease, I ordered her to cease doing so. Four days afterwards menstruation, which had been absent during lactation, came on. The patient was a strong woman and in robust health when seized with illness, and the small-pox was confluent in type. I was not particularly anxious about the menstrual loss, and, learning that it was not excessive, I did not interfere. I unfortunately could not get a trained nurse, and had to put up with a particularly bad one of the charwoman type, who evidently considered self-protection was the first object to be attained—the means adopted being to saturate herself with whisky. I was misled by this woman as to the quantity of blood actually lost. At my next visit the patient showed signs of anæmia in the mucous membranes, and the pulse was greatly weakened. I discovered the loss was very considerable, and though active remedies were adopted she died. It is probable that if active measures had been taken to stop the hæmorrhage sooner—which, unfortunately, was of a far greater extent than was anticipated—the result might have been different.

As regards the management of such cases of menorrhagia or metrorrhagia, in many instances, as I have already stated, we may consider the loss of blood, if moderate, as beneficial, and we are right in not interfering with it. The uterine mucous membrane may be considered to be acting as a safety valve, and good effects may possibly result by lowering the blood-pressure and the temperature. But we must be very watchful and cautious not to let the hæmorrhage continue too long lest it become almost uncontrollable. I am convinced that we take too little notice of the occurrence of menstruation during a febrile attack. We may or we may not be casually told that our patient is menstruating, and if we are we treat the remark almost with indifference. In other cases we may not hear of it, the nurse or friends of the patient considering it a natural occurrence and of little consequence. I imagine that in the old days of bloodletting our fathers were accustomed to inquire and take into consideration more than we do the loss of blood by menstruation, for the simple reason that a lowering of the blood-pressure was a part of the treatment in all febrile diseases; and it is, I think, probable that nature's loss frequently saved the operation of venesection. In considering how far the hæmorrhage is beneficial in such cases, we should be greatly guided by the general bodily condition of our patient. We should consider what loss of blood she is capable of sustaining, and be careful to ascertain the former performance of the uterine function, and also learn if our patient is of a hæmorrhagic diathesis. When we have decided that the loss of blood must be checked or stopped, it is not always easily accomplished; the marked fluidity and want of coagulability of the blood in some cases rendering ordinary hæmostatics almost inert, our treatment then must be very active, and, if necessary, plugging of the vagina must be resorted to.

In conclusion, let me suggest that, as careful practitioners, more attention be paid by us to the occurrence of menstruation during a febrile attack; and let us ascertain whether we have menstruation or uterine hæmorrhage to deal with, bearing in mind that the former is a common term for all forms of uterine hæmorrhage with the laity. It is just possible that by an oversight of this kind we may find, too late perhaps, that a physiological process has stolen a march upon us and insidiously become converted into a pathological and maybe a therapeutical difficulty, and that a hæmorrhage which, had it occurred from the nose, lung, stomach, or bowel, would have received every attention at

our hands, because it has arisen from an organ which periodically bleeds has been deemed unimportant, and not calling for special attention. It may occasionally happen that in such a neglect lies the explanation of the tardy convalescence or fatal termination of some cases which otherwise seem difficult to understand.

Stanley, Durham.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF COUPLE RHYTHM OF THE HEART.

BY W. J. COLLINS, M.D., M.S., B.SC. LOND., F.R.C.S. ENG.

"COUPLE RHYTHM" was the name first given by Dr. Hyde Salter in 1871 to a rare and curious abnormality of the rhythm of the heart beat which he had observed in three cases. The subject did not appear to attract the attention of any observer until 1882, when Dr. Henry Cook of Bombay published three cases he had observed in India, and added a sphygmographic tracing. Recent medical treatises and dictionaries of medicine do not contain any account of this curious phenomenon; and as the cases are very rare, it may be interesting to publish the notes of one that I have had under my observation. Before doing so I may say that the peculiarity consists in the cardiac systoles going in pairs or couples, the pause between the two being much less than that which separates one couple from another. It is not a reduplication of both sounds, as is proved by the pulse, the sequence of events being lubb-dup, lubb-dup, pause, lubb-dup, lubb-dup, pause. It is neither an intermittence nor an irregularity, as Dr. Hyde Salter pointed out. It is rather an intermittent irregularity than a regular intermittence, and the irregularity is singularly regular. All three of Dr. Salter's cases had valvular disease of the heart, so had two of Dr. Cook's cases, while the other was suffering from malarial fever.

J. R——, aged nineteen, a footman, was first seen by me in January, 1882. He complained of palpitation, which became distressing upon exertion, and was getting worse every year; it had troubled him altogether about five years. He had never had rheumatism, had had measles and whooping-cough, with subsequent bronchitis, at three years old, but since then had enjoyed fair health. The apex beat was in the normal situation, the cardiac dulness not increased; on auscultation, what first of all sounded like reduplication of both sounds was heard, but on listening more cautiously, the couple rhythm described above was very distinctly audible. The pulse, too, exhibited the usual anomaly in these cases. The rate was 48 per minute, and the radial pulse synchronised with the first of each couple. On coughing or exerting himself—e.g., lifting a chair,—the pulse rate was immediately doubled, the second systole of each couple being then also appreciable at the wrist, giving 96 pulsations per minute. A sphygmographic tracing gave an ocular demonstration of the anomaly, exhibiting the paired rhythm of the pulse, and the first of each pair being a more powerful systole than the second. There was a short systolic bruit, most distinct at the left base, and presumed to be hæmic in character and causation. It was very remarkable to observe the pulse while the transition from the rapid rate to the exact half of that rate took place; every alternate beat weakened down, until at last it was no longer appreciable to the finger, and sank into the pause. Urine: specific gravity 1026, acid, no albumen. No other physical signs or symptoms beyond considerable anæmia were observed.

I saw the patient once or twice again in 1882, and each time observed precisely the same phenomena. Then I lost sight of him until April, 1885, when he came complaining of a severe cough which he had had two months, with occasional hæmoptysis; and at the right apex were observed increased vocal vibrations and crackling crepitation, while at the left apex were coarse breath sounds. The couple rhythm was still present, but less marked than formerly—that is to say, the pause between the members of a couple approximated to that between two couples. As an opportunity to go to Australia presented itself, he left England in August, 1885. I heard from him in December last from Lithgow (New South Wales). Alas! the voyage had apparently aggravated his lung trouble, and he entered Sydney Hospital on landing with both lungs seriously diseased. Quite recently I have been informed of his death.

In the absence of any better explanation of this rare and striking phenomenon I would suggest as its cause a rhythmic rise and fall in the activity of the medullary cardio-inhibitory centre, akin to the rhythm which we know to exist in the respiratory and vaso-motor centre; this would produce an alternate reining up and relaxation of the heart's spontaneity, and so occasion the symptom described.

ON THE TREATMENT OF HYDATIDS.

BY ARTHUR SENNETT, M.D. ABERD., &c.,
FORMERLY HOUSE-SURGEON, LONDON HOSPITAL.

IN THE LANCET of Jan. 15th, 1887, Mr. Laurence Humphry describes a case of hydatid cyst of the liver, in which collapse and an urticarial eruption followed as the result of puncture with a hypodermic needle, and which was afterwards cured by evacuating the cyst. I believe this method is generally adopted, the aspirator or trocar and cannula being used, and the cyst completely emptied. In this country, where the disease prevails, such is the general practice; and I have operated on about a hundred cases in this manner, with a fair percentage of recoveries. My notes do not extend over all the cases, but about ten deaths out of the hundred would be nearly, if not exactly, correct. The conclusion, however, has been forced upon me that this treatment is not the best, and during the last year I have treated each case by puncturing, using a large hypodermic syringe with two needles, drawing off about two drachms of the fluid, and then injecting a similar quantity of a weak solution (two grains to the pint) of perchloride of mercury. The result of each case has been satisfactory; no suppuration has resulted, and the cyst has gradually contracted. The generally accepted principle that collections of fluid in the internal parts of the body should not be suddenly evacuated is thus not violated. The action of the perchloride, even in such minute quantities, is sufficient to destroy the vitality of the echinococcus, which is never great, and the spontaneous method of cure is simulated as nearly as possible. That many cases do get well spontaneously is shown by the fact that in fully one-third of the necropsies I have made at the Hamilton Hospital on men who have lived in the bush for a length of time, and who have been accustomed to drink any water that they might meet with, a shrunken cyst has been found. I am not aware if the above method of treating this disease has been previously described, nor have I opportunities of referring to the literature of the subject. It seems to me to meet the indications and to be based on scientific principles.

Hamilton, Victoria.

FRACTURE OF ASTRAGALUS; SUBSEQUENT NECROSIS; REMOVAL OF CARIOUS BONE; RECOVERY.

BY ARTHUR E. SALTER, M.B.

ON August 3rd, 1886, I attended a child (S. C——), aged four years and four months, with an injury to her left ankle joint, caused by her falling from the top of a heap of house studs, some of the timber falling on the ankle. When I saw her she was in great pain, the accident only having just happened. There was no bruising, but the foot was displaced a little outwards, and there was a large effusion of blood beneath the skin on the inside. She was in intense pain. Having chloroformed her and examined the joint, there was crepitation distinctly below the joint, the inner malleolus was broken. Believing the fragments would unite well, I put up the limb in a splint, guarding against pressure over the effused blood, and in this way it was left for a few days, at the end of which, as great pain was complained of, the splint was removed. The limb having been again put up, it was left for three weeks, when a plaster splint was applied and kept on for another three weeks, after which, the pain commencing to be great, the splint was removed, whereupon some signs of approaching suppuration were visible. In this position it was left without any splint, and on

Sept. 29th an abscess below the inner malleolus was opened under chloroform, and pus evacuated; on this occasion the opening made with the knife was probed and dead bone distinctly felt. The child took chloroform very badly, requiring a large quantity to produce anæsthesia, and soon regaining her sensation if not kept very deeply under the influence of the drug. On Oct. 4th, under the influence of chloroform, the opening into the diseased bone was enlarged, a small scoop introduced, and a considerable quantity of carious bone in a softened state removed, the cavity so made being well syringed with carbolic water (1 in 80). The bone was still disinclined to heal, and on Oct. 31st the cavity in the astragalus was again scooped out, and more bone in a disintegrated and decomposed state removed. From this date onwards the joint proceeded well. Subsequently a piece of the internal malleolus came away, and the patient was able to walk about, having as a result some enlargement of the joint and not good mobility. I believe the mobility will considerably improve as time goes on, the patient being so young.

Thursday Island, Queensland.

PUERPERAL PYREXIA.

By R. J. CALLENDER, M.R.C.S., L.R.C.P.L.

THE following case may prove interesting and useful to some of the readers of THE LANCET:—

Mrs. P—— was safely delivered of a female child on March 26th. The placenta came readily away and firm contraction of the uterus ensued.—March 27th: Feels quite well. Has taken a quantity of food (slop diet). Discharge abundant.—29th: Slight headache, which she attributes to not having had her bowels relieved since her confinement. Ordered castor oil.—31st: Called at 8 A.M. to see the patient. She complains of excessive heat, restlessness, headache, and thirst. Temperature 103°; pulse 130. Lochia very scanty. Slight pain in the abdomen on the left side. Slight soreness of throat. Ascertained that her bowels had been moved four times. Had been out of bed on the 29th and 30th, while bed was made, and had complained of shivering. Did not sleep the preceding night. Ordered turpentine and hot poultices to be applied to the abdomen, and a mixture containing solution of acetate of ammonia and tincture of opium. I went back at 10 P.M. and found her still very restless. She had had no sleep. Temperature 104°; pulse 140. Lochia very scanty, but not offensive. The uterus was washed out with warm water and Condy's fluid.—April 1st: Has had no sleep. Temperature 105°; pulse 140. Lochia almost ceased. Slight tenderness over abdomen. Ordered a draught containing fifteen grains of quinine, with twenty minims of hydrobromic acid. Called two hours later. She was then sweating profusely, had noises in the head, and was very deaf. She seemed quite under the influence of the quinine. At 10 P.M. the temperature was 104° and the pulse 120. Ordered a quarter of a grain morphia pill, as patient had had no sleep for three nights.—2nd: Temperature 103·2°; pulse 120. Lochia much more abundant; pain gone. Has slept well. Gave fifteen grains more quinine. At 10 P.M. the temperature was 100·2°, and the pulse 95. She felt much better. Lochia profuse. Better able to take the nourishment ordered (half an ounce of brandy, with yelk of egg, every four hours, and beef-tea).—3rd: Temperature 99·1°; pulse 90. Patient has had a good night's rest, and seems inclined to sleep. Ordered a small dose of castor oil. From this time the patient made a good recovery.

I consider the quinine has in this case proved most useful, bringing down the temperature quickly and causing the interrupted lochia to come freely away.

Northumberland.

REMOVAL OF ADENOMA OF THE BREAST: USE OF COCAINE.

By E. F. GRÜN, M.R.C.S.

I DESIRE to give a brief account of the removal of an adenomatous tumour of the breast under the influence of cocaine, no other anæsthetic being used. The tumour, about the size of a walnut, had existed for about six months. The patient, a highly intelligent lady residing at Putney, was extremely anxious for its removal, but had great objection to taking either chloroform or ether. Under these circumstances it was determined to remove the tumour with cocaine only, the ether being at hand in case of necessity. Dr. Woodhouse kindly assisted in the operation, which was conducted in the following manner:—The breast was first smeared with a 5 per cent. solution of oleate of cocaine, which absolutely deadened the pain of the hypodermic needle; then a mixture of a saturated solution of cocaine with the hypodermic injection of morphia (B.P.) was injected over the two extremities of the tumour. In five minutes all sensation had disappeared over an area of about three square inches. An incision about two inches long was now made, the raw surface painted with saturated solution of cocaine, and the tumour gradually dissected out. Two arteries were tied, and the wound stitched together, but it had to be reopened to tie another small artery. The whole operation lasted about an hour and a half. The patient was continually asked during the operation if she felt pain; she stated that she felt no pain whatever. This is the first case in which a tumour of the breast has been removed under the influence of cocaine. The patient has since made a most satisfactory recovery.

Putney.

PUERPERAL ECLAMPSIA; CRANIOTOMY.

By BEAVEN RAKE, M.D. LOND.,
GOVERNMENT MEDICAL OFFICER, TRINIDAD.

ON April 10th, 1887, about 7 P.M., I was called some miles into the country to see B——, a Hindu aged about twenty. I learnt that she had been in labour about twelve hours, and that it was her second child. I found her deeply comatose, lying on her back, her face very sunken, and her pulse 130, very weak. She was said to have been in this state for some hours. The head was at the brim and the os the size of a shilling. There were no pains. I examined the abdomen carefully, but could detect no fœtal movement or heart sounds. Her critical condition seemed to call for immediate emptying of the uterus. After drawing off about half a pint of urine with the catheter, I dilated the os digitally without chloroform, as she was too weak to make any resistance. I then tried to put on the forceps. One blade slipped on easily enough, but the head was so high up that I had not room to get on the second blade. These attempts produced clonic spasms, especially marked in the right upper extremity. Her pulse also became so weak that I feared the result of any more such irritation of the uterus. Feeling also that the child was probably dead, I perforated and completed delivery with the forceps. The child was small, and appeared to be about eight months. There were no further convulsions, and the uterus contracted well. The woman died four days later. She never recovered consciousness.

Trinidad.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

POPLITEAL ANEURYSM TREATED BY DIGITAL COMPRESSION FOR TWENTY-TWO HOURS; CURE AFTER PREVIOUS FAILURE OF ESMARCH'S BANDAGE AND ELECTROLYSIS BEFORE ADMISSION.

(Under the care of Mr. BRYANT.)

THE first of the following two cases is an example of the value of digital compression of the femoral artery in popliteal aneurysm. The great advantage which it presents over other methods in the majority of instances is so well known, that few surgeons fail to avail themselves of its use when the patient can be treated under conditions favourable to its successful employment. It would be interesting to have fuller details of the methods employed before the patient came under the care of Mr. Bryant. In the second case it would appear that the prolonged suppuration and

inflammation in the antrum was the cause of the new growth which ultimately developed there and required removal. We are indebted for the following notes to Messrs. F. Beard and W. F. A. Clowes.

John E——, aged thirty, was admitted into hospital on Sept. 26th. The family history was good. The patient broke his arm about ten years ago; he has also had yellow fever; with these exceptions he has always enjoyed good health. He first noticed the aneurysm about six months ago; it was a little painful. He does not remember having hurt himself in any way. He has had a great many appliances used, but without success. He had a pad put over his femoral artery, and a weight suspended (partly) over it; finding this did no good, an Esmarch's bandage was tried, but this had no effect. Two needles, attached to an electric battery, were run (across one another) into the aneurysmal sac, and an electric current kept running through; but this had no better effect than the other appliances, so the patient came to the hospital to see if anything could be done for him.

On admission, the patient had a swelling on the outer side of the popliteal space of the left leg, which pulsated, but the pulsation ceased when pressure was applied to the femoral artery.

Sept. 28th.—Mr. Clement Lucas saw the patient this afternoon, and ordered digital pressure to be applied to the femoral artery, and the pressure was commenced at 4 o'clock this afternoon.

29th.—The pressure has been kept up all night, and is still going on (1 P.M.). The swelling, which was before soft and pulsating, has become smaller and hard. The patient had an injection of morphia last night.

30th.—The pressure was discontinued yesterday at 2.30 P.M. No pulsation can be felt in the aneurysm.

Oct. 1st.—There is no pulsation to be felt this morning in the popliteal artery; a slight pulsation can be felt in the posterior tibial artery. The patient's leg is kept still by means of sand-bags, which are placed on either side of the leg. His temperature is normal.

3rd.—There is still no pulsation in the aneurysm, which has decreased in size, but pulsation in the dorsalis pedis can be plainly felt.

16th.—The patient got up for a short time this evening. The aneurysm has become very hard, and has much decreased in size.

31st.—Patient left the hospital to-day; he is quite well. The aneurysmal sac has become very small and hard. The patient has still a little pain round about his knee when walking.

ROUND-CELLED SARCOMA AFTER PROLONGED SUPPURATION OF ANTRUM; PARTIAL EXCISION OF SUPERIOR MAXILLA.

(Under the care of Mr. BRYANT.)

The following notes were taken by Messrs. McDeane and F. J. Nisbet:—

M. H——, aged forty-nine, was admitted into No. 21, Lydia ward, on Feb. 22nd, 1886. Family history good. No previous diseases or injuries. Ten years ago the patient first began to suffer from pains in the head and left side of her nose; then a gathering would form and burst. She got worse about fifteen months ago, and then a swelling came inside her mouth on the upper left jaw; it discoloured her left eye very much. She had some teeth drawn, but this did not help her much. Her doctor then operated, cutting a passage through the left alveolar process into the nose. There was some discharge from the antrum, and this antral suppuration continued for many weeks; it was probably started by the carious teeth above mentioned. She went to the seaside, and returned home quite well. At Christmas she again had pains in her face and eye, and an obstruction of the lacrymal duct, tears escaping over her cheek. She went under an operation on her eye, and was ordered to syringe out her nose with carbolic lotion. About three weeks ago the swelling re-formed in her mouth, and she was advised to come to Guy's Hospital.

On admission the patient was a pale-faced woman; her left cheek was very swollen, and her left eye discoloured and half-closed from œdema of the cellular tissue. Inside her mouth the left upper alveolar process was seen to be greatly swollen. She experienced pain on anything touching her left cheek, the pain shooting up the left side of the face and to the left ear. On looking up the left nostril, a mass of growth could be seen. The left alveolar process showed two or three large polypoid masses, which appeared to be coming from the interior of the antrum. There was a good deal of thickening of the tissues over the left malar bone, and great tenderness on pressure. The mass in the left nostril had much the appearance of an ordinary polypus. There was no depression of the palate or pushing upwards of the orbital plate.

Operation.—Chloroform was administered, and Mr. Bryant commenced by making a vertical incision in the middle line of the upper lip. The coronary artery was twisted, and the incision was carried upwards round the ala of the nose to the left inner canthus. Numerous arteries were twisted. The incision was then carried outwards to the cheek-bone. This flap of skin was then laid outwards, and two vertical cuts were made with a saw through the alveolar process of the superior maxilla (in the middle line and about two inches externally). This piece of bone and tissue was then removed, and the cavity was well scraped and washed out with iodine lotion. The cautery was used to stop any hæmorrhage. The mouth was then washed out with chloride of zinc, the pieces of skin were brought into their proper places and stitched, and the wound dressed with iodoform gauze. The patient's temperature on the night of the operation was 98°.

Report by Mr. TARGETT, *Surgical Registrar.*—The mass of growth removed was rather cubical in shape; there was a large opening in the left gum, circular, one inch in diameter, and leading directly into the antral cavity; this, no doubt, is the remains of the old puncture of the antrum. Through this opening there are large polypoid masses of growth, fungating which are extensions from similar material in the antral cavity. Almost the whole of the thin anterior wall of the antrum has been destroyed, and the growth is now involving the deeper portions of the cellular tissue of the cheek. The antral cavity is quite full of growth, which readily breaks up into pieces; one portion had extended into the left nasal cavity. The line of excision has not gone clear of the growth along the malar border, but the cavity was well scraped at the time of the operation. The growth itself is of a greyish colour, soft, pulpy, and vascular, having the appearance of a soft round-celled sarcoma of the antrum. Under the microscope, masses of round cells, with no fibrous stroma, and large thin-walled vessels, were seen.

Report continued by Ward Clerk.—March 4th: The stitches were all taken out; the sponge came away yesterday evening; patient progresses favourably; the wound looks well and heals nicely.—11th: One or two sloughs come away daily from the inside of the mouth. The wound below the eye is now doing better, the œdema having now almost entirely disappeared. No discharge worth speaking of. Patient doing fairly well.—20th: Patient left the hospital to-day, very much improved in health; the wounds are nearly healed; the cavity at the back of mouth looks healthy; plenty of granulation around the surface.

VICTORIA HOSPITAL FOR CHILDREN.

TRAUMATIC STRICTURE IN A CHILD AGED THREE YEARS.

(Under the care of Mr. H. H. CLUTTON.)

For the following notes we are indebted to Dr. Moline, the medical registrar. The case is of interest from the age of the patient, as the child was under two years of age when the symptoms of stricture were first noticed.

A boy, aged three, was admitted in August, 1886, with the following history. When one year and seven months old he was run over by an omnibus, his mother stating that "the horse trod on him and the wheel passed over his leg." For two days his urine was bloody and blood dripped from the end of the penis after micturition. After this the symptoms were those of difficult and frequent micturition, which gradually increased in severity till his admission into the hospital. He was then constantly screaming, straining, and passing only a few drops of urine at a time. The rectum was also frequently protruded. There was no external sign of any injury.

On Aug. 26th, under chloroform, Mr. Clutton succeeded, after injecting the urethra with oil, in passing a fine catgut bougie through a stricture at the bulb. Nos. 2 and 3 silver catheters were then passed, but were very tightly held by the stricture. The patient was much relieved, passed his urine in a stream, and evidently had much less frequent desire to empty his bladder. On Sept. 9th, under chloroform, No. 2 straight silver catheter was passed, and then, in succession, Nos. 3, 4, 5, 6, and 8. They were each in turn tightly held

by the stricture. After this operation all symptoms of an irritable bladder entirely disappeared, and he was from this time perfectly relieved. On Sept. 15th straight silver catheters were again passed to ensure the perfect dilatation of the stricture. As Nos. 6 and 7 were not held tightly, still larger sizes were tried, and it was then found that Nos. 9 and 10 could be passed, but the latter was very tightly embraced by the stricture. He suffered in no way from this operation, and left the hospital on Sept. 22nd.

Remarks.—The rupture of the urethra was probably not complete, or the symptoms would have been more urgent after the accident. There was no evidence forthcoming as to the possibility of a fractured pelvis, but it would appear as if the rupture had been produced by direct external violence. Another interesting point is the size to which dilatation of the urethra was carried. The penis was of quite the normal proportions for a child of this age, and yet it readily admitted a catheter of the size of No. 10 English scale. This was done for the purpose of thoroughly stretching the stricture, but it proves that a small lithotrite and evacuating tube could be introduced at this early age if lithotrity were necessary.

BRISTOL ROYAL INFIRMARY.

THREE CASES OF INTUBATION OF THE LARYNX.

(Under the care of Drs. SHINGLETON SMITH and WALDO.)

For the following account we are indebted to Mr. James Swain, house-physician.

CASE 1.—E. W——, aged two years and four months, was admitted on April 16th, under Dr. Shingleton Smith. There was marked dyspnœa, as shown by the recession of the epigastrium and supra-clavicular fossa during inspiration; the lips were rather blue, and there was a harsh croupy cough. The fauces generally were red, and the tonsils slightly swollen. Temperature 100·6°. By three hours after admission the dyspnœa had become so urgent that intubation (after O'Dwyer's method) was performed. This was followed by a slight attack of coughing, which lasted about half a minute, and then the child breathed quite calmly, the relief being perfect. Throughout April 17th the patient continued comfortable, the temperature ranging between 100° and 102·8°. The slight cough, which still continued, was almost aphonic.—18th: Tube removed, after remaining in position about thirty-seven hours. After removal, in consequence of gradually increasing dyspnœa, the tube was again inserted about three hours after removal. This time, however, it remained in only for a few minutes, being ejected during a violent attack of coughing. From this time the child improved, the temperature gradually lowering until it became normal on April 23rd. The voice continued to be rather hoarse for upwards of a week after the removal of the tube. A slight attack of broncho-pneumonia supervened, but this did not appear to be in any way connected with the process of intubation.

CASE 2.—R. B——, aged five years, was admitted on April 24th, under the care of Dr. Waldo. The mother stated that the child had been ill a week with symptoms of catarrh, a cough of harsh character, and gradually increasing dyspnœa, with occasional attacks of greater severity but comparatively short duration. On admission, the child's face had a leaden hue; there was great restlessness and dyspnœa, although little epigastric recession; cough of croupy character; fauces slightly reddened, but no membrane visible. Urine concentrated, and containing a trace of albumen. Temperature 101·2°. The symptoms of dyspnœa gradually increased, although temporary relief was obtained by the action of an emetic powder, and intubation was resorted to during a severe attack of paroxysmally augmented dyspnœa early in the morning of the 25th. This was followed by marked relief, but not so complete as in the foregoing case.—April 26th: Cough rather severe. Child is able to speak, but the voice is not loud. Urine still albuminous. In the evening, about thirty-six hours after its introduction, the tube was expelled during a severe attack of coughing. Two hours after the ejection of the tube the child coughed out a piece of false membrane about three-quarters of an inch long. The temperature ascended to 104°, but in all other respects the patient seemed better. A gradual improvement took place, and the temperature reached the normal line on April 30th. On May 1st, however, an increase in the amount of albumen in the urine occurred, and the temperature rose to 102°. It continued elevated for a few days, and then the child began to convalesce. The albuminuria disappeared finally on May 5th. The child's voice was hoarse up to the time of her discharge from the infirmary on May 13th.

CASE 3.—J. M——, aged three, was admitted on May 10th, under the care of Dr. Smith. The patient had only been ill one day with cough and difficulty in respiration. On admission no abnormal appearance about the fauces, but croupy cough and slight dyspnœa. Temperature 99°; urine acid; no albumen.—April 11th: Dyspnœa getting worse, but was slightly relieved by emetic powder.—12th: Patient has had several paroxysmal attacks of dyspnœa during the night. The face is livid, and there is marked epigastric recession. The administration of an emetic powder caused no diminution in the symptoms. Very little air is now entering the chest. The pulse is small and feeble, and the child seems exhausted. Intubation was performed at 6.15 P.M., and was followed by instant relief.—13th: The child continued perfectly comfortable until 5 A.M., when it was found that the string by which the tube had been fastened to the cheek had been gnawed through and the end attached to the tube had disappeared. As the tube was not found *in situ* and had not been ejected, it was concluded that it had been dislodged during the act of coughing and had been swallowed. By 9 A.M. the patient had again become so dyspnœic that intubation with a larger tube was performed; this, however, was ejected in three-quarters of an hour. The breathing continued fairly easy for a few hours, and then the child again became dyspnœic. Temperature 99·4°.—April 14th: Intubated again at 12.30 A.M. Again followed by instant relief. Rhonchus over lungs behind. Slight diarrhœa. Temperature ranging between 99·8° and 102°.—April 15th: The child seems rapidly getting weaker. Pulse 172; respiration 44; temperature gradually ascending, 103° at noon. Air seems to enter the chest fairly freely; no moist sounds; rhonchus over back of the lungs occasionally. Death occurred at 4 P.M., the temperature in the groin being 106·4° just before death, and 109·4° in the rectum immediately after. At the necropsy the trachea and bronchi showed marked signs of acute inflammation, a slight amount of frothy fluid could be squeezed out of each lung, there were a few patches of pulmonary collapse, and emphysema was markedly present in the right and slightly so in the left lung. The tube which the child had swallowed was found in the cæcum, to which it had travelled without doing any apparent injury.

Remarks by Drs. SMITH and WALDO.—The subject of laryngeal intubation has been more or less freely discussed in recent medical publications, but in England, at all events, this comparatively new operation is now on its probation, and cases thereof have been sufficiently few to justify us in pointing out any practical lesson which has been gained from the above cases without any attempt at theoretical speculation as to the merits or demerits of the operation in general. In introducing the tube, it seems best to have the child sitting on the nurse's lap with the head slightly inclined forwards towards the sternum. The tip of the finger which is passed into the child's mouth, after passing over and hooking up the epiglottis, nearly always impinges on the top of the arytenoid cartilages, and the tube, when introduced, can be felt in front of one's finger passed into the lower part of the pharynx behind the upper opening of the larynx. From want of familiarity with the operation, we deemed it advisable in the above cases (except the last intubation of Case 3) to fasten the string which is attached to the tube during its introduction to the cheek of the child by means of strapping. This is, we are convinced, a mistake, for it irritates the child, and by the movements of the tongue under the string the tube is apt to be dislodged, because the outer end, which is fastened, is necessarily a fixed point. The tendency of the tube seems rather to be ejected from than to be drawn into the larynx, and Case 3 shows how the tube may be dislodged and swallowed in spite of an attempt to secure the tube. The process of removal of the tube is, moreover, a comparatively easy one. The acute tracheitis and bronchitis which occurred in Case 3 we feel almost bound to attribute directly to the operation; for the intensity of the inflammation was greatest in the upper part of the trachea and diminished as it went down the respiratory tract. Whether the insertion of a tube which was presumably rather large (for the child had swallowed the tube which corresponded to the size of its larynx) had an increased effect in the causation of this

inflammation we cannot say, but no doubt there is a tendency to the occurrence of laryngitis, as indicated by the hoarseness of voice which persisted in the other cases some time after the removal of the tube. It is, perhaps, interesting to note that the tube which passed so harmlessly through the pylorus and ileo-cæcal valve measured two inches in length. We cannot enter upon the question of the relative value of tracheotomy and intubation, but it is right to state that in each of the above cases we should have been absolutely compelled to perform tracheotomy had not the process of intubation been substituted. Our object is rather to show that intubation of the larynx is in some cases attended with perfectly satisfactory results, but yet has dangers of a somewhat more serious character than some recent writers would lead us to suppose.

Medical Societies.

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It was unanimously agreed, on the proposal of Sir DYCE DUCKWORTH, seconded by Dr. CRAWFORD, that an address be presented from the Society to Her Majesty the Queen on the occasion of the completion of the fiftieth year of her reign.

Dr. RADCLIFFE CROCKER read a paper on Dermatitis Gangrenosa Infantum. Four groups of cases were described. In the first there was no evidence of varicella antecedent to the gangrenous or ulcerating eruptions, and in most it was distinctly negatived. In the second group are cases in which varicella has preceded the sloughs or ulcers, which either developed immediately upon the varicella pustule or occurred as a sequela beginning in independent lesions. In the third group vaccination was the immediate antecedent. In the fourth group are placed certain cases of local gangrene resembling cancrum oris; but the individual lesions began in exactly the same way as the independent eruption which followed varicella, and there was a tendency to generalisation, or, at all events, to extension beyond the region in which it started in some of the cases. A general account of the disease was drawn up from an analysis of the preceding and other cases, and it was shown that there is great difference in the severity of the eruption. In some the gangrenous patches were so numerous and extensive as to lead to the death of the patient in a few days, while at the other end of the chain are cases of so mild a character that there were only superficially ulcerating pustules, which came out in crops, thus protracting the disease as a whole for a considerable time, and generally accompanied by intense pruritus; these milder cases appear to correspond with Mr. Hutchinson's varicella prurigo. Between the two extremes are cases of all grades of severity. Comparison was made between the local and general gangrenous eruptions, and, among other things in common, it was shown that they both attack girls more than boys, and occur at about the same ages. The conclusions arrived at were—that the gangrenous eruptions are pathological accidents, so to speak, which in young children, especially when of tubercular constitution, might supervene upon any pustular eruption, although no doubt such a condition is much more common after varicella. Secondly, that the determining factor is probably a micro-organism derived from without, though cultivation and inoculation experiments could alone prove the truth of this theory. Thirdly, that the initial lesions, both of the local and general gangrenous eruptions, present the same characters.—Mr. JONATHAN HUTCHINSON said that he never doubted that other eruptions than vaccinia and varicella could be followed by gangrenous changes. The various specific animal poisons had the power of altering the condition of the patient and rendering him liable to gangrene of the skin and other parts. He had seen many cases of cancrum oris in children who were in excellent health till the measles or other specific fever had overtaken them. There were cases also in which no known antecedent cause could be made out—neither syphilis, nor scarlet fever, nor vaccinia or varicella, &c. He distrusted the view that tuberculosis as a constitutional tendency was liable to set up gangrene of the skin. He thought this was very highly improbable. He thought that we must receive with caution the statement that no evidence existed of the previous occurrence of varicella, for it may be easily overlooked, having occurred in a sporadic form. Infection may occur in individual pustules which are not of varicellar origin; these are not extensive and not symmetrical, but irregular in distribution, and resulting from injury are succeeded by the formation of pus and absorption of the same. He congratulated Dr. Crocker heartily on the value of his paper.—Dr. RADCLIFFE CROCKER was glad to find that Mr. Hutchinson did not differ so very much from the position assumed in his paper. In one case at least the evidence was of the strongest character that the vesicular eruption was not of varicellar nature, and yet gangrene supervened. As to tuberculosis, if well marked and attended with high fever, he thought that it offered a genuine predisposition to the development of gangrene.

Mr. JONATHAN HUTCHINSON contributed a paper on a form of Inflammation of the Lips and Mouth, which sometimes ends fatally, and is usually attended by some disease of the skin. The paper contains the description of a disease (not, it is believed, previously recognised) in which superficial ulcerations occur in the lips and in various parts of the mouth, followed sooner or later by some form of skin disease and tending to a fatal termination. The form of skin disease may vary, but the hands and feet are the parts usually affected, and the nails are especially prone to suffer. In some instances the eruption may consist of bullæ which are followed by free papillary outgrowths. The patients attacked are usually in middle life, or in early senile periods. No special antecedents can be alleged as the probable cause of the malady. Unless checked by treatment the disease appears to run its course in about six months, producing death by exhaustion. There seems reason to believe that opium given in repeated doses will cure it, and that there is, at any rate in some cases, no tendency to relapse afterwards. All the best marked cases as yet observed have occurred in males, but in several milder ones the patients were women. Of the most characteristic, two were master tanners, one was a farmer, one a clergyman, and one a gentleman of no occupation. All these resided in the country. Careful inquiry has failed to support the suspicion that the disease might perhaps be due to contagion from animals. Of these five cases, two ended fatally and three in recovery. The patients who died were these first observed, and since the discovery of the signal efficacy of opium no case has ended in death. The observation as to the efficacy of opium was simultaneously made by the President of the Society, Mr. Pollock, and by the author, two different patients being at the same time under their separate treatment and recovering under this drug. Since that every case has yielded, if the dose of opium were sufficiently pushed. In one, however, the disease did not yield quickly and for more than a month seemed likely to end in death. As regards permanency of cure, in one case the patient is known to be quite well four years after his recovery, in another there is reason to believe that such is the fact, and in a third a period of two years has elapsed. In two of the milder cases, occurring in younger patients, the disease has repeatedly relapsed. A great variety of remedies had been tried without benefit before the use of opium was resorted to. In no single case has there appeared to be any tendency to spontaneous improvement. In all the cases the inflammation of the lips and mouth took definite precedence of the skin symptoms, and in some the latter were very slight. It is not known that any case has as yet been obtained amongst the poorer classes of society. The author desired to abstain for the present from expressing any detailed opinion as to the causes or nature of the malady. He would, however, venture to suggest that it is allied to other forms of disturbed health attended by skin disease and occurring in early senile periods, such as certain peculiar varieties of psoriasis, pemphigus, lichen planus, and pityriasis rubra. In confirmation of this suggestion, and as an appendix to the paper, a case is narrated (with a portrait in illustration) in which an elderly lady had a kind of spreading eczema-psoriasis of the hands and scalp. She lost her nails and all her hair, and was rapidly failing in health in spite of various measures of treatment, but finally

by the stricture. After this operation all symptoms of an irritable bladder entirely disappeared, and he was from this time perfectly relieved. On Sept. 15th straight silver catheters were again passed to ensure the perfect dilatation of the stricture. As Nos. 6 and 7 were not held tightly, still larger sizes were tried, and it was then found that Nos. 9 and 10 could be passed, but the latter was very tightly embraced by the stricture. He suffered in no way from this operation, and left the hospital on Sept. 22nd.

Remarks.—The rupture of the urethra was probably not complete, or the symptoms would have been more urgent after the accident. There was no evidence forthcoming as to the possibility of a fractured pelvis, but it would appear as if the rupture had been produced by direct external violence. Another interesting point is the size to which dilatation of the urethra was carried. The penis was of quite the normal proportions for a child of this age, and yet it readily admitted a catheter of the size of No. 10 English scale. This was done for the purpose of thoroughly stretching the stricture, but it proves that a small lithotrite and evacuating tube could be introduced at this early age if lithotrity were necessary.

BRISTOL ROYAL INFIRMARY.

THREE CASES OF INTUBATION OF THE LARYNX.

(Under the care of Drs. SHINGLETON SMITH and WALDO.)

For the following account we are indebted to Mr. James Swain, house-physician.

CASE 1.—E. W——, aged two years and four months, was admitted on April 16th, under Dr. Shingleton Smith. There was marked dyspnœa, as shown by the recession of the epigastrium and supra-clavicular fossa during inspiration; the lips were rather blue, and there was a harsh croupy cough. The fauces generally were red, and the tonsils slightly swollen. Temperature 100·6°. By three hours after admission the dyspnœa had become so urgent that intubation (after O'Dwyer's method) was performed. This was followed by a slight attack of coughing, which lasted about half a minute, and then the child breathed quite calmly, the relief being perfect. Throughout April 17th the patient continued comfortable, the temperature ranging between 100° and 102·8°. The slight cough, which still continued, was almost aphonic.—18th: Tube removed, after remaining in position about thirty-seven hours. After removal, in consequence of gradually increasing dyspnœa, the tube was again inserted about three hours after removal. This time, however, it remained in only for a few minutes, being ejected during a violent attack of coughing. From this time the child improved, the temperature gradually lowering until it became normal on April 23rd. The voice continued to be rather hoarse for upwards of a week after the removal of the tube. A slight attack of broncho-pneumonia supervened, but this did not appear to be in any way connected with the process of intubation.

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recovered quickly and completely under opium. Her case does not belong to the group described in the paper, because she never at any time had inflammation of the mouth.—Mr. POLLOCK referred to the value of opium in all cases of ulceration of the skin. In cases of phagedæna occurring many years ago opium, in his hands, had proved of singular value. He never used any kind of caustic. We were very much indebted to Mr. Hutchinson for the interesting clinical grouping of cases brought forward in the paper.—Mr. MACNAMARA referred to the case which had been under his care. There was no apparent reason for the ulceration and inflammation of the mouth which supervened on the sufferer's return home from India. The spleen and liver were somewhat enlarged. Emaciation and cachexia were already advanced, and although opium was ordered, it was probably not taken as prescribed, and therefore had not had a fair trial.—Dr. RADCLIFFE CROCKER said that so far as the mouth part of the disease was concerned the condition was new to him. He testified to the value of opium in chronic progressive skin affections in old people. Was the affection related in any way to the pemphigus vegetans of Neumann?—Mr. HUTCHINSON, in reply, thought the affection might be so related.

ACADEMY OF MEDICINE IN IRELAND.

Malignant Disease of the Tonsil.—Excision of the Wrist Joint.

AT a meeting of the Surgical Section, held on April 22nd Mr. HENRY GRAY CROLY read a paper on Primary Sarcoma of the Tonsil, and detailed the history of two cases. The first case, Michael D——, aged seventeen years, was admitted into the City of Dublin Hospital on April 22nd, 1886, suffering from a tumour involving the left tonsil and soft palate. The boy was in excellent health until six weeks previous to his admission into the hospital. The disease commenced like ordinary tonsillitis, and so much did the swelling resemble tonsillar abscess that an exploratory incision was made by the medical gentleman who first saw the case; no pus escaped. The patient suffered from dyspnœa and dysphagia. A glandular swelling subsequently formed in the left digastric space. Sir James Paget, who was in Dublin at the time, kindly saw the patient with Mr. Croly, and concurred in his view of the case and in the proposed treatment—viz., preliminary tracheotomy and removal of the growth from within. Tracheotomy was performed on May 4 h. The patient experienced much relief. The tonsillar and palate swelling and the digastric tumour disappeared almost entirely after the bronchotomy, but soon reappeared. Mr. Croly excised the tumour from beneath the angle of the jaw on May 18th, and subsequently removed the tonsillar and palate growth by means of the benzoline cautery. The tonsil and digastric tumours were round-celled sarcoma. The disease returned very rapidly in the digastric space and afterwards in the palate. The patient got drowsy, and suffered from violent headaches; the glands in the neck enlarged. He returned to the country, and died in October—six months from the commencement of the disease. The second case occurred in a man over fifty years of age. The sarcoma was confined to the tonsil, and so much did it simulate tonsillar abscess that an incision was made into the tumour. Mr. Croly declined operative treatment in consequence of extensive infiltration of the cervical glands. The patient returned to the country, and died from exhaustion caused by repeated hæmorrhages.—The PRESIDENT said that the case was one of great clinical interest and of exceptional rarity. Though the operative measure was not attended with success, yet that procedure was eminently justified, and at an earlier stage might have had a different result.—Mr. THOMSON asked whether Mr. Croly had succeeded by this method in getting away the whole of the tonsil with the cautery; because if there was only a spouting mass removed and a portion left behind, the after-history was intelligible. Although he never saw a case of the kind, it occurred to him that the external operation would give increased facility for getting at the structures to eradicate them. The difficulty of operating through the mouth on the tonsil was the uncertainty of removing the whole gland.—Mr. W. THORNLEY STOKER said he approved of the thermo-cautery, and used it freely and frequently; but this was one of the cases in which he would be slow to rely upon it as being an instrument of dangerous facility in finding its way, and therefore if he sought to do more than remove the surface of the gland, especially where malignant disease existed, he would adopt the apparently more heroic operation of dividing the cheek and jaw, and enucleating the gland from its attachment by means of an instrument of less facility.—Mr. KENDAL FRANKS concurred with Mr. Stoker in his objection to the thermo-cautery, not only because the surgeon might travel into undesirable parts, but also because of the increased difficulty which cauterisation created of seeing the limits of the disease. He thought Mr. Croly was right in taking it from the inside, and that the surgeon need not be afraid of going close to the carotid artery, there being a good depth of tissue between the tonsil and that artery to avert danger.—Mr. CROLY replied. His first idea was to relieve the patient by tracheotomy from the sense of choking, having no wish to cut out the tonsil either from inside or outside. His experience of those growths had been, unfortunately, that the operation would only give temporary relief. Hence he asked Sir James Paget what he would do if he had the case in London, and that eminent surgeon replied that he would perform the preliminary tracheotomy and cut out as much of the tumour through the mouth as he could. In fact, in this instance, unless he cut off the boy's head he could not have cut out the disease, and therefore it was immaterial whether he made an external or an internal incision, although he reflected on the hazardous proceeding of cutting within from without. He regarded the case as one of malignant disease occurring with great rapidity, and it was a question whether, in a similar case, he would do anything but tracheotomy to relieve the patient. The external growth was completely encapsuled, and came out as a nut would out of the shell. The wound healed by primary union, but the disease returned with great rapidity, being in the boy's blood. What proved of greatest interest to him was its likeness to tonsillar abscess.

Mr. WHEELER read a paper on Excision of the Wrist Joint.—Mr. HAMILTON asked why Mr. Wheeler retained Esmarch's bandage in this particular excision and objected to it in others. He himself disliked it in almost all excisions, particularly of the knee, owing to the increased amount of blood lost.—The PRESIDENT said there was a tendency to run down Esmarch's bandage, which he was not inclined to endorse from his own experience. In his case, where secondary hæmorrhage ensued, he believed it was due to the faulty application of the bandage, perhaps with too great firmness; but he looked upon it as one of the greatest improvements in modern surgery.—Mr. W. THORNLEY STOKER expressed his unqualified objection to the use of Esmarch's bandage in any excision of a joint; but he would be sorry to object to its use in many other forms of operation—for instance, the removal of necrosed bone, where, without it, the surgeon saw nothing but a pool of blood. In excision of joints, however, there were two great objections to its use: First, troublesome hæmorrhage, which some attributed to want of skill in applying the bandage; but he believed it could never be applied in such a way as to empty the limb of blood without being followed by troublesome hæmorrhage. The second objection was that it altered the appearance of the bone so much that the surgeon could not form a proper estimate as to whether the bone was truly healthy or diseased.—Mr. CORLEY said in excision of the wrist the question of the case being scrofulous was a serious item for consideration, having regard to the probable return of the disease, and therefore the necessity of amputation in the end. Thus Mr. Wheeler's, judging from the ages of the patients, were not strumous cases, and the chances of success were fair. In that view the question of Esmarch's bandage was one of minor importance.—Mr. TOBIN was surprised to hear early passive movement in such cases recommended, except where there was likely to be stiffness.—Mr. WHEELER, in reply, said the splint he used was similar to that employed by Lister, but a little more elevated at the heads of the metacarpal bones. Having put in a drainage tube, he bandaged the hand to the splint, putting T nicks at each side, so that he need not remove it. The wrist was steady on the splint, while each finger was moved separately. He had deprecated the use of Esmarch's bandage in excision of joints, for in excision of the knee he had secondary and sometimes intermediary hæmorrhage, and if that occurred whilst the limb was in a fixed apparatus of plaster-of-Paris it would be necessary to take off the plaster-of-Paris to stop the hæmorrhage. He

did not, however, condemn Esmarch's bandage in suitable cases where there was considerable oozing, and it was necessary to see the parts; for instance, he used it when removing the cuboid bone. Having used the bandage both ways, with the rubber and elevating the limb, he found that by putting the band round above the seat of operation, and not using the rubber, he had an almost bloodless operation. The best time to begin passive movement was on the second or third day folowing the operation, the metacarpal bone being held steady.

Chronic Interstitial Nephritis.—Ideal Paralysis.—Calculous Pyelitis, followed by Albuminoid Disease.

At a meeting of the Medical Section held on April 29th,

Mr. C. H. ROBINSON read a paper on a case of Chronic Interstitial Nephritis, which was published in THE LANCET of June 4th.

Mr. W. BERNARD of Londonderry read a paper on Ideal Paralysis; and another on a case of Neurosis of the Viscera, ending in dilatation of the stomach. He also exhibited macroscopic and microscopic specimens of the latter case.—Mr. CONOLLY NORMAN said the first case detailed in Dr. Bernard's paper exemplified the extreme difficulty attending the diagnosis of apparent physical affections in the insane. Instances of absolute silence for years had also some affinity. He remembered a case recorded in one of the German journals, eight years ago, of a man who had been found wandering in a village and was committed to a lunatic asylum, where he remained for years and never spoke, being silent probably through a delusion, so that his identity was not discovered.—Mr. FITZPATRICK mentioned the case of a girl, aged twenty, admitted into St. Vincent's Asylum, suffering from hysterical mania, and she exhibited delusions assuming a variety of diseases. At one time she fancied her arm was paralysed, and after long persuasion that it was not so she got the use of the arm again. At another time she remained without speaking for months. During these delusions she took her food and gave no trouble to the attendants. At length, in January last, after twenty years of intermittent delusions, she had an attack of epilepsy, followed by paralysis of the right side, and she never spoke from that time to her death. Two months ago she was attacked again with epilepsy, followed by paralysis on the left side. She was then in a state of general paralysis. He never had a second opinion but that there was structural disease in the brain, and his prognosis was verified after twenty years. Dr. Bernard's case would, in all human probability, develop in an attack of disease.—Mr. COX said that he had had himself, in the country, a case of ideal paralysis. A strong healthy man took to his bed, suddenly paralysed, but on examination he came to the conclusion that it was only a case of ideal paralysis; he considered that the man would become paralysed if he remained in bed. His opinion, however, was not accepted. Some time afterwards this man was driving, and the wheel coming off his trap, he was forced to get out, and he walked home.—Mr. MOLONEY asked if there were any history of hereditary insanity or of intemperance in Dr. Bernard's case.—The PRESIDENT doubted whether surgical interference would be useful where the stomach was so enormously dilated, as in the present case, because, even if a fresh pylorus were constructed by the skill of the surgeon, so long as the stomach remained dilated it would form a receptacle for decomposing matters, alimentary and secreted.—Mr. BERNARD replied. In the first case the patient had a motive for lying in bed—namely, to get his friends to pay more attention to him; and his pretending to be paralysed went on so long that really he could not walk. The case had nothing in common with that mentioned by Dr. Fitzpatrick. There was no hereditary tendency to insanity whatever. He regretted not having washed out the stomach twice instead of once in the twenty-four hours. Power was never lost over the rectum and bladder.

Dr. J. W. MOORE read a paper on a case of Calculous Pyelitis, followed by Albuminoid Disease. The patient, a porter, aged seventeen, was admitted into the Meath Hospital, under his care, on Thursday, March 24th, 1887. He was exceedingly ill—wasted, blanched, and weak. On being questioned as to the duration of his illness, he said that his legs began to swell a fortnight previously, when also severe pain in the left groin set in. His appetite was bad. The first touch of the liver suggested the probable existence of albuminoid change in the organ. At the same time it was ascertained that the spleen was certainly not to any extent enlarged. The urine, however, was found to be highly albuminous, showing on microscopical examination a few hyaline tube casts, but no pus-corpuscles or blood-cells; it was acid in reaction, and its specific gravity was only 1010. There was moderate anasarca of the lower extremities, and the left leg was flexed, as in hip-joint disease—vital ankylosis. The patient died on April 16th. At the necropsy, the lungs and heart were found to be practically healthy. The liver was greatly, yet uniformly, enlarged. It weighed 7 lb., was very firm and hard, and yielded a pink colouration with aniline blue. The pancreas and spleen were inseparably welded together by old adhesions; they weighed jointly 13½ oz. The spleen was slightly congested; its capsule was thickened, and presented appearances of former perisplenitis. It showed the characteristics of the "sago spleen" of albuminoid disease. The pancreas was firm, almost cartilaginous, and the neighbouring glands were enlarged. But the interest attaching to the examination attained its climax when the kidneys and their environs were reached. The left kidney, or what remained of it, was embedded in a mass of dense, cartilaginous-looking connective tissue. On cutting through this, the organ itself was found almost entirely destroyed, converted into a multilocular cyst with intervening bands of chondroid connective disease. The cysts contained a horribly fetid urino-purulent fluid, and branching calculi were found in some of them. The pelvis of this kidney was obliterated, as the result of old-standing calculous pyelitis, and the ureter also was thickened and widely dilated down to a point about 2½ inches above its entrance into the bladder, where it was completely occluded by a smooth oval calculus. This was of a bluish-black colour (from deposition upon it of a sulphide), so resembling a piece of limestone rounded by the action of the sea. Passing downwards from the tunica adiposa and invading the sheath of the left psoas muscle, a fetid perinephritic abscess had tunnelled, so causing the pain and stiffness in the left hip joint. The presumption is that during the closing weeks of the patient's life this abscess had partly evacuated itself by the bowel, but a careful examination with a catheter failed to discover any opening—valvular or otherwise—into the intestine. The absence of pus in the urine was satisfactorily explained by the complete occlusion of the left ureter, as above described. The left kidney and its surrounding connective tissue weighed 6 oz.; but the right kidney weighed more than twice as much—14½ oz., or between three and four times the normal weight of the viscus. It had evidently undergone compensatory hypertrophy to a very marked extent; but in time its fate also overtook it, and at the moment of death it was the seat of albuminoid disease, only in a less degree to the liver. A histological examination confirmed the widespread existence of albuminoid disease.—The PRESIDENT said the case illustrated the difficulty attending the diagnosis of renal mischief. The quantity of urine passed was an important element in disease of the kidney. The morbid specimen had not the very pale colour and consistency for which the genuine albuminoid liver was distinguished.

CAMBRIDGE MEDICAL SOCIETY.

AT a meeting on April 1st the following communications were made:—

Dislocation of Lens.—Mr. DEIGHTON showed a patient with complete dislocation backwards of the lens of more than twenty years' duration. There was no history of a blow or fall: T = + ?, vision only central; with + 11 D. V = ⅗. With the ophthalmoscopic mirror the lens could be seen freely movable in the vitreous, and of an opaque bluish-white appearance. Examination of the fundus revealed extensive patches of superficial and complete atrophy of the choroid. The optic disc was cupped. Dust-like opacities were present in the vitreous. Vision in the other eye was ⅘. The patient had suffered severely from syphilis.

Puerperal Fever.—Mr. WHERRY gave a report of an important outbreak of Puerperal septicæmia in Bedford, Gamlingay, and seven villages around. There were at least twenty deaths occurring in the practices of seven different medical men. The outbreak at Gamlingay was especially mentioned: cases occurred from November, 1884, to August, 1885. There were thirteen cases of fever and nine deaths. There was one case of sudden death. The patient expressed

herself as feeling perfectly well, had a good appetite, and went downstairs. Her temperature was never below 103°, nor her pulse under 120. One week after confinement, while partaking of tea in bed, she fell back dead. An incident illustrating the condition of some of the houses in regard to overcrowding and the method of propagation of the poison by the patients and their friends was also related.

Sanitation of the Lying-in Chamber.—Dr. BOXALL, in a paper dealing with the above subject, pointed out that much of the illness following delivery was essentially of a preventable nature. It is not the mortality alone which should be taken into account. Those minor ills of the puerpera, the outcome of less fatal attacks, must be also included. Septic poison can only be produced within the passages where air is permitted to enter, or any decomposable material is left behind; for both the presence of air and a suitable nidus are essential to decomposition. A special liability, however, exists of the poison, ready made so to speak, finding an entrance from without. Dr. Boxall urged the importance of inquiring into the antecedents of the nurse, with a view to ascertain if she had been nursing or otherwise brought into contact with any person suffering from septicæmia or pyæmia, burns, abscesses, or acute specifics. If exposure have occurred, he advised a complete change of clothing, and a general carbolic or iodine bath. He regarded as the most important element in antiseptic midwifery the thorough washing of the hands with soap and water, including the use of the nail-brush; but he further advised the soaking of the hands and wrists in strong antiseptic solution (sublimate 1 in 1000, or carbolic acid 1 in 20) immediately before making any examination, performing any obstetric operation, or touching the genitals of the patient. Second only in importance to this was the thorough washing and subsequent disinfection of all instruments and utensils employed. The abolition of sponges, and the employment of cotton wool or tow in place of napkins, he thought beneficial in every way. Special inquiries should be made into the source of all articles passed on from one patient to another, such as binders and mackintosh sheets. Parish bags in use among the poor should always be regarded as likely to contain assorted samples of infection. The condition of the drains should be carefully ascertained, and any defects remedied long before the expected date of the confinement. Too little attention was frequently paid to this point, and also to the subject of ventilation. A fire should be kept burning in the grate, and one window at least opened a few inches at top. With regard to the choice of antiseptic agents, he urged the advisability of employing one of universal applicability rather than several, more especially when incompatibility exists. Sublimate is incompatible with soap (hence the hands must be well rinsed before they are immersed in the solution) and with oils (hence sublimated glycerine or vaseline should be substituted for carbolic oil or lard, as a lubricant); carbolic acid is incompatible with Condy's fluid, which, again, is decomposed by soap, while iodine enters into combination with the alkali contained in it. These are points which are frequently overlooked. Whatever antiseptic be used, the strength should invariably be measured accurately, for if the proportion be merely guessed at, not only may the solution be so weak that its sepsis-destroying properties become much deteriorated or are quite destroyed, but, on the other hand, it may be so strong that great danger may result, either locally to the living tissues or generally by absorption, especially when the more powerful agents are employed, in the form of douche after delivery. For the hands and instruments he advocated the invariable employment of corrosive sublimate (1 in 1000), or carbolic acid (1 in 20): solutions of the same strength to douche the vagina in every case during the first stage of labour, and after labour subsequently to douche the uterus also, where any intra-uterine interference or foul discharge from the cervix specially indicated such a proceeding. But after the first douche the solution might usually be reduced to half the strength. The sublimate douche frequently administered was not unattended with danger, and he would never advise its use unless the patient were under constant observation. In ordinary cases, when the douche was given as a routine practice, he considered Condy (colour of claret) or boracic acid (saturated solution) of sufficient potency. While he invariably advocated the douche (given morning and evening till the lochial discharge ceases, at from 110° to 115° F.) as a routine practice when the services of a competent nurse are available, he felt sure that in the hands of an ignorant woman more harm than good might ensue. In such a case it was advisable to trust to the more simple details necessary to ensure thorough washing and disinfection of the hands and instruments, the exclusion of all sources of infection and of decomposition from, and free ventilation of, the lying-in chamber, and to limit the employment of the douche to the labour, unless special circumstances dictated its subsequent use, and then it should be performed by the doctor in person or under his immediate supervision. Intra-uterine irrigation should never be entrusted to the nurse, however efficient she may be.—Dr. INGLE thought Dr. Boxall must have selected an unusual season or place for the statistics given. He did not think the experience of private practitioners would furnish anything near such an estimate, but rather evidence wholly to the contrary. Effort after such sanitation as had been described by Dr. Boxall might be of service in lying-in institutions, with trained skill and careful medical oversight; but in general practice he thought it undesirable that much interference with the parturient should be encouraged other than great cleanliness. Injections of vagina, except specially needed, were rather to be discouraged as involving many risks.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING was held on April 14th (Mr. W. A. Garrard in the chair), of the proceedings of which the following is an abstract:—

Malignant Tumour of Œsophagus.—Dr. J. D. WYNNE showed an œsophagus which was involved in a cancerous mass for about six inches from just above the root of the lung downwards, greatly reducing the calibre of the tube below. The patient was aged seventy-nine, and for about a year suffered from occasional dysphagia, which became worse during the last three weeks of life, so that eventually all food was rejected. The tumour was a typical scirrhus. It was interesting to note that during life the patient had complained of no symptoms of heart disease, but had a loud mitral systolic murmur, and at the post-mortem the mitral valve was found to be roughened and very much dilated, the left auricle also being greatly dilated and the left ventricle hypertrophied.

Pemphigus Neonatorum.—Mr. JEFFREYS related this case, occurring in a child five days old. It was not specific; bullæ existed on the face, chest, back, abdomen, arms, and legs; confluent, some being as much as three inches in diameter. The case was treated successfully with opiates and arsenic, the body being washed occasionally with bran water and anointed with purified vaseline.—Remarks were made by Mr. Jackson, Dr. Dyson, Dr. S. Roberts, and Dr. Keeling.

Sarcomatous Tumour of Anterior Lip of Uterus, complicating Labour.—Mr. JEFFREYS also related this case. The patient was in her second pregnancy. Barnes' bags were employed and forceps applied. There was considerable hæmorrhage. After the birth of the child the tumour descended to the vulva, and was found to be a rounded mass of about two inches in diameter, attached to the uterus by a thin pedicle. It was removed by transfixing the pedicle, applying a silk ligature, and cutting it off with a pair of scissors. Satisfactory recovery resulted. Dr. Galabin had kindly examined the tumour, and called it a fibro-sarcoma of the cervix uteri. The time elapsed was too brief at present to discuss the question of recurrence of growth.

Dr. W. R. THOMAS related a case of Paralysis of both Arms from severe exertion.

Mr. SNELL introduced a patient with Right Homonymous Hemianopsia.

BIRMINGHAM HOSPITAL SATURDAY FUND.—A meeting of the subcommittee appointed for the purpose of considering a scheme for the distribution of the proceeds of the local Hospital Saturday collection was held at Birmingon the 8th inst. The total sum received up to the present time exceeds £6800—more than £100 in excess of last year's collection. It was decided that £5500 be divided amongst the medical charities of the town, the apportionment to be conducted on the plan adopted in previous years—namely, in proportion to the ordinary current expenditure of each institution, as stated in the last published or audited report.

Reviews and Notices of Books.

Die Allgemeine Pathologie, oder die Lehre von dem Ursachen und dem Wesen der Krankheitsprocesse. Von Dr. EDWIN KLEBS. Erster Theil: Die Krankheitsursachen; Allgemeine Pathologische Aetiologie. (*General Pathology, or the Doctrine of the Causes and Nature of Morbid Processes.* By EDWIN KLEBS. Part I.: Causes of Disease; General Pathological Etiology.) Jena: Gustav Fischer. 1887.

THERE are few writers better qualified to produce a work of the scope indicated in the above title than the well-known Zurich Professor. His name has for many years stood in the foremost rank of scientific pathologists for his abundant original researches and for his admirable "Handbook of Pathological Anatomy," which seems to have been destined, like the classical treatise of Virchow upon Tumours, never to be completed. Nevertheless, it remains as a monument of industry and genius, and, since its appearance, it has been succeeded by other text-books, which may have replaced although they have not surpassed it. We trust, however, that a different fate is in store for the present work, and that it will be speedily completed. Professor Klebs is himself sanguine of being able to publish it all within twelve months, and, if his anticipations are fulfilled, we shall soon be in possession of a treatise that may mark an epoch in the history of pathology. For, as he points out in the preface, the sphere of pathological science has greatly changed. It has no longer to confine itself within the limits of morbid anatomy, but has to determine in what manner the anatomical lesions are brought about. Etiology has become an integral part of pathology, and disorders of function have to be dealt with as thoroughly as those of structure. Cohnheim recognised this extension of the pathological domain, but even he failed to grasp it in its entirety. For in the main Cohnheim's work was limited to the elucidation of disease by reference to normal physiological action, whereas Klebs considers that the external agencies operating to induce disease should also receive full treatment at the hands of the pathologist. It is not enough, he says, to employ pathological research merely to explain the symptoms of disease, nor, on the other hand, simply to detect the various modes in which the diseased organism differs in its action from the healthy. The first is too superficial, and is inadequate to solve many problems of disease; the second is misleading, for it is based on the assumption, too often erroneous, that physiological and morbid processes are similar in their operation. We can thus understand why Professor Klebs was always opposed to accepting the cell doctrine of pathology as a final explanation of disease, and why he was among the earliest to recognise the intervention of micro-organisms in morbid processes. We doubt if full justice has been rendered him in this regard. Though, like many pioneers in other fields, he may have allowed his conceptions to overstep legitimate bounds, yet in the main his contention was true. Day by day we are learning its truth, as we meet with proofs of the origin of disease through parasitic agencies, and note how much of what we term predisposition is the permanent effect upon the individual, and even on the race, of the changes wrought in the organism by previous disease. Cellular pathology by itself is incapable of explaining these things, nor can bacteriology by itself do so. It is the combination of these two—the struggle between cell life and bacterial life—which enters so largely into our conceptions of disease at the present day, and is destined doubtless to still further developments in the future.

Such are the ideas which appear to have dominated in the mind of the author when he determined to write this book—which he intends should treat of general pathology as a science in itself, without regard to the aims of the therapeutist. He is so purely a pathologist that he almost deplores the practice of medicine, as being more or less a hindrance to the advance of pathology. Yet is it not true that pathology must be worked out on its own lines and its fruits be gathered before they can be utilised in the treatment of disease? Treatment must perforce remain in great measure empirical, for medicine has not yet attained to the certainty of a science. We deceive ourselves when we talk so largely about "rational therapeutics," and there is no shame in acknowledging that treatment is largely based on experience, without any reference at all to pathology. If we may venture to look forward to the future position of practical medicine, we should anticipate that it will be concerned for the most part in efforts to deal with the causes of disease, and that prophylaxis will then be as much a part of therapeutics as symptomatic treatment is at present. Pathology then will hold the field, for it is to that science that we must look for the solution of problems as to the causation as well as the nature of diseases. No longer will the "mere pathologist" be regarded as unpractical; rather he will have the keys of all the science of medicine in his hand, and will reveal to him who seeks the mysteries of disease and the methods for its subdual. If this be so—if, indeed, the medicine of the future is to be based upon the facts of pathological research—we may gladly welcome the attempt to mark the position at which pathology has attained in our day, so as to gather therefrom what hope we may of the near approach of this millennium. Professor Klebs has undertaken to do this, and the first of the three parts into which he has divided his work is that now before us. This volume deals with etiology, the next will treat of pathological morphology (in other words, the structural changes in tissues and organs induced by disease), and the third with pathological physiology (the derangements of function).

The first chapter in the present volume discusses the Nature (*das Wesen*) of Disease, from which it appears that our modern knowledge has not advanced beyond the old conception of an *ens morbi*, the only difference being a substitution in terms. Professor Klebs holds that the varied manifestations of disease depend more upon variations in the nature of the etiological factors than in the morbid process itself; but he is careful to make a distinction between the processes and the conditions or states of disease. The former imply activity, and consist in a series of orderly phenomena connected together in time or seat, and are often referable to one and the same cause; the latter are permanent local changes, material lesions, or functional derangements, such as may be imparted by inheritance or initiated by mechanical causes. He holds that these "morbid states" are to be regarded as disease, although often it may be difficult to mark the point where the permanent lesion passes into the active outbreak of disease. A general disquisition upon Etiology forms the basis of the next chapter, where the operation of external agents, combined or not with internal peculiarities or proclivities, is especially dwelt upon. The doctrine that in many diseases the causes are multiple and not single is one that is apt to be disregarded practically. The internal causes or tendencies to disease, as exhibited by heredity or otherwise, are then dealt with, the subject being illustrated by reference to striking genealogical diagrams of many inherited affections. The light thrown on this subject by Darwinism is fully recognised, and the chapter is a most instructive one. But the main bulk of the volume is concerned with those etiological agencies which more than any other have riveted the attention of the pathological world. These pathogenic organisms have, thanks to the labours of biologists as well as of pathologists, been now so clearly differentiated that their recognition is one of the ordinary processes of pathological inquiry. They are discussed here, however not simply from their morphological

side, but with considerable detail in respect to the changes they initiate in the tissues and organs of the body. Professor Klebs brings all his vast experience to bear upon the elucidation of these great questions, and his work will serve to enhance the interest which attaches to the subject; whilst for purposes of reference the book will prove invaluable. There are many coloured plates and illustrations in the text, upon which we would fain dwell longer did space permit.

Photography of Bacteria. By EDGAR M. CROOKSHANK, M.B. London: H. K. Lewis. 1887.

THE application of photography to microscopical investigation has, in spite of its difficulties, made considerable advances of late. That it entails very great advantages cannot be seriously doubted, since it entirely does away with the intervention of the draughtsman in depicting the characters of a microscopical specimen. Desirable as it may be in histology, the adoption of photography in bacteriology is even more to be wished for; and there is no saying how important it may prove in correcting observations and harmonising conflicting statements concerning such minute objects, where the liability to misinterpretation on the part of the observer is enhanced by the conditions under which the observation is made. Mr. Crookshank should therefore be congratulated in his successful attempt to popularise the employment of photography in bacteriological research in the face of discouraging opinions as to its value put forward by high authorities. A study of the numerous reproductions of his photographs which are contained in this work shows both the weakness and the strength of the procedure. Some are as clearly defined as could be wished; others suffer from lack of definition and lose their characteristic features, without, however, any interference with their general grouping. It will be noticed that the "enlargements" of negatives are those which present the least satisfactory characters; but even in spite of the additional difficulties encountered in procuring good impressions of such enlargements, no more successful results could be desired than those representing Proteus Zenkeri (Plate iv., figs. 1 and 2), Bacillus anthracis (v., 2; vi., 1 and 2; viii.), Bacillus tuberculosis (x., 2), Bacillus alvei (xi., 2), Spirillum Finkleri (xiii., 1), Spirillum choleræ asiaticæ (xiii., 2), Spirillum Obermeieri (xiv., 2), Spirillum volutans (xv., 1), and the cover-glass impressions of Bacillus figurans (xvi.). The photographs from which these enlargements were made are all included, so that the reader can compare the results. These plates will form an excellent addition to the descriptions of such text-books as the author's manual of bacteriology. The technical description of the method of photomicrography pursued by the author is so clear and detailed that it will prove of the greatest service, and will, we trust, impart a stimulus to the study of an interesting and useful subject, which there is good hope may do a great deal to impart precision and accuracy to microscopical investigations.

The Diagnosis and Treatment of Diseases of the Kidney amenable to Direct Surgical Interference. By W. BRUCE CLARKE, M.A., M.B.Oxon., F.R.C.S., Assistant Surgeon to, and Senior Demonstrator of Anatomy and Operative Surgery at, St. Bartholomew's Hospital; Surgeon to the West London Hospital. With Illustrations. London: H. K. Lewis. 1886.

THE volume before us is to all intents and purposes the essay to which the Jacksonian prize was awarded in 1886. The fact that it was considered worthy of this reward by the Council of the College of Surgeons is the best guarantee of its merit that can be adduced. It bears evidence of having been written because the subject was chosen for this prize, and we miss in it the signs of the mastery of a subject that we are accustomed to find when an author is writing upon a branch of surgery that he has made his own by long study and thought. The book will commend itself to many readers by its brevity and the number of illustrations it contains; but for fulness of detail and thoroughness of description it is no rival of Mr. Henry Morris's work on the same subject, and in amplitude of references and statistical information it falls short of Brodeur's recent thesis. It contains, however, a plain statement of the main facts in this branch of surgical pathology, and a very brief and simple description of the various operations on the kidney.

OUR LIBRARY TABLE.

The Principles and Practice of School Hygiene. By ALFRED CARPENTER, M.D. With illustrations, pp. 368. London: Joseph Hughes. 1887.—We are informed in the preface that this volume was "primarily written for students in training for educational work, as well as for those occupied in preparing them for their future duties." It consists of two parts: the first relating to the construction and fitting up of schools, and the general management of the pupils considered from a sanitary point of view; and the second to the accidents and injuries incidental to school life, the more common diseases which occur among the pupils, and the measures which should be taken to prevent their spread. The first part contains much useful information, but might, we think, have been judiciously curtailed, especially as regards construction, considering the object with which the book was written. The chapters on dormitories, physical exercise, time allotted to study, and school desks and seats, are well deserving of study. The second part partakes much of the character of ambulance lectures and "first aid to injured," and, viewed as such, is too long and enters too much into detail. It would, in our opinion, have a strong tendency to induce masters to undertake too great a responsibility in the treatment of cases of disease or injury, and lead to serious results from delay in sending for professional assistance. We regret that Dr. Carpenter does not point out more forcibly the importance of obtaining skilled medical advice in the early stage of illness, or in injuries, particularly those involving joints. The mischief arising from delay is often very great, and is not, we fear, generally appreciated. The book has the advantage of a good index.

Veterinary Science: a Sketch. By GEORGE FLEMING, LL.D., F.R.C.V.S., Principal Veterinary Surgeon to the Army. Pp. 16. London: Hazell and Co., 1887.—This paper, which is a reprint from the *Veterinary Journal*, gives an interesting account of the progress of veterinary science from the period of the formation of the first veterinary school in 1761 to the present time. On the advice of Bourgelat, an advocate at Lyons, Bertin, the prime minister of Louis XV., was induced to establish a veterinary school and school of equitation at Lyons, of which Bourgelat was appointed director. In 1766, under the auspices of the prime-minister, Bourgelat founded a second school at Alfort, and a third was subsequently organised at Toulouse; all three are still flourishing. Shortly after the formation of the school at Alfort one was established at Vienna by order of Maria Theresa, and the example thus set was quickly followed by Prussia, Denmark, Italy, Sardinia, Saxony, and Hanover. In 1791, through the efforts of the Odiham Agricultural Society, the first veterinary school in this country was established in London, under the title of the Veterinary College of London, and M. St. Bel, who had been trained at Alfort, was appointed the first professor. The college, under the superintendence of Professor Coleman, who succeeded M. St. Bel on his death in 1793, received much valuable aid from some of the most distinguished members of our profession, of which he was himself a member, including, among others, Sir Astley Cooper, Sir Charles Bell, Dr. Babington, Dr. Bright, and Sir Benjamin Brodie. In

1819 a veterinary college was established in Edinburgh by Professor Dick, who, at his death, in 1866, left a considerable sum of money to the college, vested in the Lord Provost and Town Council as trustees. In 1814 the veterinary surgeons obtained a charter of incorporation under the title of the Royal College of Veterinary Surgeons, of which Dr. Fleming is at present the President. In this historical sketch the author directs attention to the valuable lessons which may be learned in our profession from the study of comparative pathology, and "the advantages which human medicine must derive from careful observation and investigation of the diseases of animals." The great importance to the nation of sound veterinary science and skill may be estimated by the fact that "two exotic bovine diseases alone (contagious pleuro-pneumonia, or lung disease, and foot-and-mouth disease) have been estimated to have caused a loss during the first thirty years of their prevalence in the United Kingdom of 5,549,780 cattle, roughly valued at £83,616,854; while the invasion of cattle plague in 1865-66 has been calculated to have caused a money loss of from five to eight millions of pounds.

A Systematic Handbook of Volumetric Analysis. By FRANCIS SUTTON, F.C.S., F.I.C., Public Analyst for the County of Norfolk, &c. Fifth Edition. London: J. and A. Churchill. 1886.—Another new edition of a book so well known and so universally esteemed among scientific men as Sutton's Volumetric Analysis scarcely requires notice. The author has evidently spared no pains to incorporate all the more important of the additions which every month brings to our analytical resources. Among the additions in the new edition may be mentioned some newly devised and simple methods of gas analysis, and a synopsis of the valuable researches of Mr. R. T. Thompson on the indicators used in alkalimetry. These are merely quoted here as samples of the new matter with which Mr. Sutton's industry has enriched a book which is essential in every laboratory, and for which every chemist feels grateful.

The Gas Engineer's Chemical Manual. By J. ALFRED WANKLYN, Hon. Fellow of the Chemical Society of the University of Edinburgh, &c. London: The Scientific Publishing Company (Limited). 1886.—Mr. Wanklyn has, as usual, produced a good, and in some respects an original, little book. It is not without faults, but it will probably be more useful to the gas engineers, for whom it is designed, than a more elaborate scientific treatise. The methods of analysis described are within the range of skill commonly found in gasworks, and if the author prefers methods of his own devising, who shall blame him? The book is short, simple, and handy. New ideas and new systems are hardly touched upon, with the exception of the coal-liming process of Mr. Cooper. Gas engineers ought certainly to be grateful to Mr. Wanklyn.

The Organic Materia Medica of the British Pharmacopœia. By W. SOUTHALL, F.L.S. Fourth Edition. London: J. and A. Churchill. 1887.—We are glad to find that this unpretending little volume has reached a fourth edition. It contains a great deal of useful and practical information, not only on materia medica, but on pharmacy and pharmacognosy. The author has not confined his attention to the British Pharmacopœia, but has consulted other works of reference. The articles are well arranged, and are thoroughly reliable. The book is intended for medical and pharmaceutical students, and will be found useful.

The Year-book of Pharmacy for 1886. By LOUIS SIEBOLD, F.I.C., F.C.S. London: J. and A. Churchill. 1887. It is always a pleasure to record the appearance of this well-known Year-book of Pharmacy, which contains not only the transactions of the British Pharmaceutical Conference, but also abstracts of a number of valuable papers and articles relating more or less to materia medica, chemistry, pharmacy, and pharmacology. The present volume contains a great deal of useful information respecting lanoline, kairine, terebene, acetophenone, urethane, and other new drugs. Mr. Siebold has performed his editorial duties with his usual care, and the work is thoroughly trustworthy.

IRISH MEDICAL ASSOCIATION.

THE forty-eighth annual general meeting of the members of this Association was held at the Royal College of Surgeons in Ireland on the 6th inst., presided over by Dr. Kinkead. The report of the Council referring to the Medical Acts Amendment Bill of 1886, which has now become law, considers its provisions disappointing, inasmuch as they fail to protect the profession against practice by unqualified persons, and perpetuate an excessive and unnecessary number of licensing bodies granting qualifications to practise, of diverse educational grades, and without any settled standard of competency. In a recent report the committee of Council expressed a hope that a Bill to amend the Superannuation Act would soon be introduced into Parliament; but after considerable discussion it was agreed that it would be useless to ask the Government or any private member to introduce a measure of the kind unless the opposition of the Irish members could be overcome or their support counted upon; and that support, it was considered, could not be obtained in view of the facts that the Irish members chiefly represented the interests of the boards of guardians, which were generally hostile to allowing any powers to be taken from them, and further, that several of the Irish members had most strenuously opposed the Bill to amend the Superannuation Act previously put forward in Parliament. The Council had pleasure in stating that further cases of successful applications by medical witnesses at Court had been made for more equitable fees and expenses than were allowed by the rules of the committee of judges authorised to fix them. In opposition to the attempts made during the past year by the guardians of some districts to reduce the salaries of their medical officers, the Council were successful, the Local Government Board having refused to sanction the proposed reductions. An amendment to the report was adopted in reference to that portion of it bearing on the superannuation of medical officers, to the effect that the leaders of all parties in Parliament should be consulted to ascertain their views as to the terms of a Poor-law Superannuation Bill, which would receive their co-operation. The following resolutions were adopted:—

"That it would be but simple justice to the medical officers holding Poor-law or other medical appointments, and would tend towards increasing the efficiency of the service, that they should be entitled to a reasonable period of leave of absence in each year, as in the case of civil servants, and that provision for the same should be made at the public expense."

"That this Association requests the Council to avail themselves of the first favourable opportunity of introducing to the notice of Parliament a suitable measure, with a view to reasonable amendment of the law relating to superannuation of Poor-law medical officers."

The President stated that the result of the scrutiny of the voting papers showed that Mr. H. Gray Croly had been elected to the post of president of the Association for the ensuing year. The members and their friends dined together in the evening in the Albert Hall of the Royal College of Surgeons.

BIRMINGHAM AND MIDLAND SKIN AND LOCK HOSPITAL. The report presented at the sixth annual meeting of the governors of this institution on the 9th inst. showed that during the past year the number of new cases had been 2038—an increase of 41 on the number of the previous year. The finances are in a satisfactory condition, the balance of income over expenditure being £466. The building fund, for which a total of £6000 is needed, amounts to £4000, but it was decided not to commence the work until the remaining £2000 has been subscribed.

THE LANCET.

LONDON: SATURDAY, JUNE 18, 1887.

AFTER the meetings of the last two weeks, rich in speeches by the best men in every denomination and by leaders in the City and in the State, a common excuse for a poor collection to-morrow will not hold. It will not do any longer to say that an inadequate collection arises from ignorance of the case. The support of hospitals has been an affair with which the run of people, even kindly people, have been apt to think they had nothing to do. It was supposed to be secured by the piety of ancient founders; as if the generosity of one century could do the work of the generosity of another, and as if the piety of a man like GUY was to supersede the benevolence of whole future centuries. It is true of GUY that he actually did, with some assistance from another man of benevolent nature, supply for more than a century the magnificent accommodation to the sick for which Guy's Hospital has been famous throughout the world. But experience shows that men like GUY are of rare occurrence, and that the wants of the sick and the poor of any one generation must for the most part be met by their more fortunate contemporaries. We cannot rely on ancient endowments for the urgent work of relieving the sick that are about us to-day. Even Guy's itself is asking for help, and has a large part of its beds out of use for want of funds. The one good thing about the impecuniosity of Guy's is that it tends to rouse attention to a lamentable failure of public charity. The failure is to the extent of £100,000 a year—i.e., the excess of the expenditure and liabilities of the medical charities of London last year exceeded the ordinary income by £100,000. This sounds a large sum; but it could easily be put into the collection to-morrow without there being a dinner party less in London or the curtailment of summer holidays by one day. Anyhow, there it is staring us in the face. The ministers of religion have a rare opportunity to-morrow. By a sort of providential arrangement they have the Sunday before the great Jubilee day, when the feeling of national and metropolitan gratitude may be expected to require religious and substantial expression. They will not make light of the opportunity. The care of the churches is on their shoulders, and this presses heavily enough. But, as the Bishop of LONDON said at the Mansion House, we cannot pretend to be Christians while we make light of the claims of the sick. The very note of the Messiahship was that the sick were healed, the lame made to walk, and the blind to see. Such services are rendered every day in London hospitals. As far as the services are medical, they are mainly gratuitous. All that the public and the churches are asked to do is to find beds and maintenance and surgical instruments, while the beneficent work of medicine is being done. The Rev. Dr. ALLON justly traced this sentiment of humanity further back, even to the earliest traditions of religion and the scriptures of the Old Testament—a view confirmed by the fact that in this great anniversary Jew and Christian co-operate heartily together, and the Chief Rabbi is as earnest as the Archbishop of CANTERBURY. At one of the hospital meetings it was estimated that if the London churches gave in the same numbers and on the same scale as those of Birmingham the sum raised would be nearer £200,000 than £40,000. Surely the metropolis should not be beaten by a provincial town—even though it be Birmingham, where Hospital Sunday was first instituted. Two churches in London supply nearly a twentieth of the whole collection, and Dr. ALLON showed that the average sum raised by the London congregations is £20 each. He is no mean authority on the power of churches, and of what he called at the Mansion House the "voluntary principle." But he did not speak as if he thought that the churches had done all they could or should do, and he very powerfully contrasted the pleasure of giving to hospitals out of kindness and being made to give by a municipal or parliamentary rate. We heartily emphasise this difference, and recognise on behalf of the medical profession the pleasure of co-operating with the public in a divine and charitable work. There is no abuse in hospitals which does not admit of correction, and no correction of abuses will diminish the amount at present wanted for dealing with urgent cases. In fact, thousands of urgent cases are kept out of hospitals for want of funds. Every medical man knows this. Cases have to be turned out of hospitals prematurely, either to undergo a slow convalescence, or to die in the straitened homes of the uncomplaining poor. Thousands more are never admitted that an ampler charity would admit and greatly benefit. The life of hundreds is handicapped by chronic sufferings that might be alleviated or removed by a few weeks of hospital treatment, which in the present state of hospital funds cannot be given. These facts scarcely come out in statistics. They have to be ascertained by personal experience of the life and death of the poor, and must be taken on testimony. But they are facts all the same, which a very slight exercise of the imagination will make obvious to those who have hearts.

We must leave preaching to ministers. We must, from our point of view, state mainly the medical side of the case. But it is very strong. With all the labours of philanthropists and political economists, life is still hard, and there is still much disabling disease among the poor. Of all uses of wealth none is better than the support of institutions for the mitigation of pain and disease. If we cannot all do as much as GUY did, we can all do work of the same kind; and in doing it we shall do much to hold society together and to make the poor feel thankful to GOD for the existence of the rich. Active measures are in contemplation for eliminating all abuse from hospitals and leaving them free to deal with grave and urgent forms of disease.

NOT a little confusion has occurred, and much misapprehension has been occasioned, by the misuse of the term "medical peerages," instead of "peerages conferred upon medical men." We do not think it has ever entered the head of any sane member of our profession to propose the institution of medical peerages properly so-called. Until quite recently there were no special peerages. Even the fact that certain prelates of the Established Church had seats in the House of Peers did not make their peerages spiritual in a technical sense, although they were "lords

spiritual." There are now constructively a few legal peerages, but it would be preposterous to ask for the creation of peerages which should be medical. No such desire exists. All we wish, and the profession as a whole demands, is that the reproach which certainly attaches to the fact that no medical man has ever yet been considered worthy of a peerage, and that therefore it would seem to be held that there is something in the calling of, or profession of, the art of healing which is incompatible with the dignity of high social rank, should be wiped away. Surely it is not true that physicians and surgeons, as such, are incapacitated for social distinction? We cannot believe that such a notion prevails in the highest circles. It would be monstrous in these days, when success of almost every sort is recognised as a claim to honour, that the attainment of a prominent position in the service of humanity in the matter of health should be held to specially disqualify a man for distinction. It has, indeed, been contended that the position of the physician and surgeon is so peculiar that it must be regarded as *infra dig.*, he being, as it were, a personal attendant on the sick; but this view, if it were ever actually entertained, must have been so at a time and among persons when and by whom the nature of scientific medicine and surgery and the character of their practitioners were strangely misunderstood. It is no idle pretence to affirm that, taken as a body, the medical profession is not either less well educated or less able to bear the dignity of seeing some of its members raised to the peerage than other professions. The Church, the Military and Naval Services, and the Law are not intrinsically more honourable or of greater service to mankind than are Medicine and Surgery. It is hardly worth while to argue the point. Every unprejudiced person must, we think, agree that such rank as is freely accorded to ecclesiastics soldiers, sailors, lawyers, men of letters, artists, and a host of successful merchants and manufacturers, cannot to be reasonably denied to medical men—at least on the ground of their calling.

We have not the slightest wish to take up a narrow class position on this subject. If there be any solid reason why medical men should not be made peers, we are perfectly willing, and even anxious, to hear and recognise it. We can only say that as yet we have utterly failed to discover any such reason. It will probably be admitted that there is no rational objection to the elevation of medical men to the peerage. Then how does it come to pass that no member of the profession has ever been endowed with a coronet? Will it be alleged that no medical man has ever done anything to deserve so high an honour? Are there not now living members of our profession whose services to the State and the people, whose contributions to the prosperity of the nation, have at least equalled those rendered by some non-medical persons who have been ennobled? It would be mock modesty and argue a very inadequate sense of self-respect if we were to hesitate one instant in making the unqualified assertion that the merits of medical men, as such, are quite as tangible as those of members of other callings which have been duly honoured. Again, we may be told that medical men are, as a rule, too poor to be made peers. Possibly that objection may, though we do not say it ever could, have been held to be a good one in past times; but looking to the way in which peerages have been distributed during the last twenty years, or more, it cannot be seriously contended that great wealth is an absolutely indispensable qualification for membership of the House of Peers. There are, if we mistake not, some among us who are sufficiently provided with the means of maintaining the dignity of a peerage. Indeed, we can confidently state that there are at least three leading members of the profession who are possessed of an income of not less than £10,000 a year from invested property.

We would respectfully but firmly submit to those who advise Her Majesty in this year of jubilee that the occasion is one which offers an excellent opportunity for the redress of what is felt to be a grievance, in the nature of a great slight, by a section of the community which is considerable, both in point of numbers and social position and influence. By conferring a peerage on some one or more of the leading members of our profession, Her Majesty would create a worthy precedent, and do a just and generous action. We do not for a moment suppose any living physician or surgeon desires to be ennobled; we do not even know that anyone would accept the offer of a coronet; but the offer might be made, so that, at least, the profession may know that it is not wholly given over to social neglect. That good would result from the presence of one or two medical men in the Upper House cannot be doubted. The need of a direct representation of the claims of health on the State is daily becoming more apparent. Moreover, it would tend generally to raise the status and tone of the profession as a whole if its claims to well-deserved honours were recognised more generously.

LAST week we commented on the Bills purporting to deal with Adulteration which are now before Parliament, and on the complaints of some of the public analysts in regard to the present and future position of the Chemical Department of the Board of Inland Revenue. But the subject is too extensive to be discussed in a single article, and there are still some remarks which in the public interest it is our duty to make. We do so with all freedom because we have no bias on one side or the other, and are only anxious that, to use a phrase common in Acts of Parliament, the best practical means shall be adopted for the suppression of the trade frauds which are still rampant, in spite of the valuable work accomplished under the Sale of Food and Drugs Act of 1875. Happily the more noxious kind of adulteration which was so rife in 1851, when we undertook our inquiries, has to a great extent been suppressed, and has for the most part become too dangerous to tempt the unscrupulous trader. We cannot say that it has entirely disappeared, because the existing Acts are so irregularly administered that certainty is impossible, but it has undoubtedly been very greatly reduced. The other kind of adulteration, however, by which the purchaser, though not poisoned, is cheated, is still so common that some alteration of the law is imperatively called for. In respect of some articles, indeed—as, for example, milk and drugs—trade frauds involve a very serious danger to public health, and have exercised a prejudicial effect upon it. The child fed on watered milk is fed on food of unknown, and therefore in many cases of insufficient, strength.

The Bills now before Parliament deal with two articles

only—beer and butter. We have already stated our views in regard to the first of these. No false description of or deleterious addition to beer can in any case be tolerated, and the revenue must of course be protected; but subject to these conditions, we see no reason for limiting the materials used in the manufacture of so artificial a beverage. Competition will regulate the price, and any artificial restriction would only add one more to the sumptuary laws which have in all ages proved failures. The case of butter is somewhat different. There can be no difference of opinion as to what in popular acceptation constitutes butter. It is a semi-solid, prepared from milk only, but containing naturally and unavoidably a considerable quantity of water. The addition of salt and of a minute quantity of some harmless colouring matter is justifiable; but foreign fats, such as are grouped together under the names of butterine and oleo-margarine, are not butter, and their sale therefore as butter is a palpable fraud. But even to this apparently simple story there is another side, which must not be forgotten. It seems certain that these butter substitutes are as wholesome and fit for food as butter. They are much more palatable than the cheaper kinds of genuine butter, and they can be sold at a profit at a cheap rate. But for prejudice they would be asked for and used freely by thousands of families, and but for their illicit use butter would be much dearer than it is at present. It is freely admitted that their sale under the name of butter is at present a fraud, but nevertheless it is a fair question whether it might not be better to destroy the fraud by legalising it. Popular prejudice is entitled to some consideration. We know perfectly well that it will be long ere a housewife can be induced to ask boldly for a pound of oleomargarine. She may suspect that the very cheap fresh butter she buys, pleasant though it be in taste, cannot trace an unbroken lineage from the cow; but she naturally clings to the name with which she is familiar, and would shrink from the idea of offering her children bread and oleomargarine. Would it not be better to respect her sentiment, and to leave the price of butter, like the price of beer, to be settled by the ordinary laws of trade competition? It would be easy to protect those who want, and are willing to pay for, genuine milk butter. Let a new word be introduced, and let everyone be warned that if he objects to substitutes he has only to ask for "milk butter," and he will either get it or be egregiously cheated. The detection of foreign fats in butter is now so easy, thanks to the labours of the public analysts, and above all to those of Mr. OTTO HEHNER and his former *confrère*, Mr. ANGEL, that adulteration of butter sold as milk butter could easily be made too dangerous to pay.

Of much greater importance is the question of drugs. The patient is practically at the mercy of the dispenser, and the dispenser depends on the merchant, who may or may not be the manufacturer. The manufacturer commands the situation, for the dispenser cannot analyse every drug which he receives. So it happens that, although most manufacturers and dispensers are honest and careful, any individual patient runs the risk of losing all the benefit of medical treatment through the imperfection of the drugs administered to him. The only standard that can be set up is evidently that of the British Pharmacopœia, and even this must be used with discretion, for some drugs are so unstable that it is impossible to keep them for any time without deterioration. It would be for the public benefit that all important drugs should be frequently analysed by some impartial chemist, but in many cases a warning instead of an immediate prosecution would satisfy justice. The adulteration of quinine is one thing, the defective strength of hydrocyanic acid quite another.

The real remedy for the present uncertainties and irregularities of the law can only be found in a new and efficient Food and Drugs Act, framed on the basis of the present. We are prevented by limits of space from stating in sufficient detail our ideas of the Act as it should be. But a few of the salient points may be sketched. The Act should be not less wide than it is now, and ought to include in its purview all adulterations of food or drugs, whether noxious or merely fraudulent. The powers of the central authority should be considerably strengthened, and it should be able to compel the enforcement of the law. A large number of local authorities do their duty thoroughly, and it would be unwise to interfere with them; but others do nothing, or next to nothing. In many places no analyst is appointed, and in others no work is found for him to do. Such authorities must be coerced if the public is to be protected. Opinions will differ as to the best way of securing the administration of the law, but one way is obviously possible. Having compelled the appointment of efficient public analysts in every district, the Local Government Board might have power to insist that a sufficient number of properly selected samples should be sent for analysis. If this duty were systematically neglected, the Board should be able to appoint their own inspector, and to charge the offending district with the expense. The regulations for the collection of samples require thorough revision. We quite agree with Dr. BELL of Somerset House that the inspector should have the power to enter premises and select his own samples, dividing them into portions, and paying for them as at present. Sometimes, as in the case of beer, large samples are required, and there is in all cases a risk that the vendor, knowing the inspector or his envoy, or guessing at the object of the purchase, may substitute a pure for an adulterated article. All articles of food and medicine should be included under the Act, whether subject to excise duty or not. There need be no conflict between the public analysts and the excise chemists. The main duty of the latter is the protection of the revenue; but an analytical department is necessary for this purpose, and we see no reason why the Government chemists should not continue to act as they do now as referees in disputed cases. Their powers should be more accurately defined, and some arrangement should be made with regard to perishable articles, such as milk, the analysis of which can never be quite satisfactory unless made upon a fresh sample. Finally, the new Act should contain a carefully drawn schedule in which the principal articles of food and drugs were defined, and limits of purity assigned. With regard to drugs this can easily be done by referring to the British Pharmacopœia as a standard. Food will occasion more difficulty, but none that need be insuperable after the experience that has been gained in the last few years. Milk, butter, and beer are the articles which have given rise to most controversy. In this and our last week's

article, we have considered the last two, and we have often stated our views in regard to milk. To the public analyst is at present assigned the impossible task of ascertaining how much water has been added to or how much cream removed from milk, and as milk is sometimes naturally very poor, he is compelled to take a low standard of purity. The Act might properly provide that milk should be held to be adulterated if it did not contain as much as 3 per cent. of fat and 9 per cent. of solids not fat, or if it contained any substance foreign to milk. The offences of watering and skimming could then be detected with certainty, and the public would be secure of getting good if not very rich milk. At present the limits used by most public analysts are 2½ per cent. of fat and 8½ per cent. of solids not fat, which represent a very poor milk.

THE question of the sanitary condition of India has been brought prominently before the British public by the publication in *The Times* of a letter by Mr. Justice CUNNINGHAM, a judge of the High Court of Calcutta, and by a leading article in that journal. Our readers must be well aware that this is no new subject to us, as we have repeatedly brought it under their notice in our reviews of the annual reports of the Sanitary Commissioner with the Government of India, and of the Health Officer of Calcutta. We rejoice that this important question has been raised by so high an authority as Mr. Justice CUNNINGHAM, and backed by the powerful advocacy of the leading journal, because it cannot fail to conduce to some more active measures of improvement than have hitherto been in operation. But to some of the statements which have been made we feel bound to take exception, believing, as we do, that nothing tends so much to retard sanitary improvements as an exaggerated representation of the need of them and of the benefits to be expected from their adoption. Thus, we are told that, "according to Professor MACLEAN, from the time of the commencement of our occupation until about 1860 the mortality of the English troops 'oscillated round' the enormous figure of 79 per 1000; and this frightful death-rate was, within a few years, reduced to reasonable proportions by the adoption of the recommendations of the Royal Commission of 1859-60. In 1882 the English military death-rate was only 13·07 per 1000 from all causes." Now, this comparison is entirely misleading, as it refers to two bodies of troops serving under totally different conditions. In the first period the British troops consisted of men enlisted for service in India, who remained there, unless invalided home as unfit, until they died or had completed twenty-one or twenty-four years' service; while in the later period they were men of the regular army, who were retained in India only ten years, and for the invaliding of whom, if their health broke down, much greater facilities existed than formerly. Those only who have studied the influence of age and of length of residence upon mortality in India will be able to appreciate the important part this change has played in the reduction of the death-rate. We by no means undervalue the influence of sanitary measures upon the health of the troops or of the civil population, but we believe they will carry more weight and be more likely of adoption when carefully and correctly estimated than when supported by inaccurate data.

Mr. Justice CUNNINGHAM in his letter calls attention to the valuable work being done by the Public Health Society of Calcutta, in its endeavours to popularise sanitary knowledge, and to bring forcibly to the notice of Government the evils of the existing state of things, and the improvements necessary for the introduction of efficient sanitation. But we are disposed to think he has not done justice to the sanitary commissioners and health officers, who were working zealously in this direction before the Society was formed; nor to the late Lieut.-Governor, Sir RIVERS THOMPSON, for his firmness in enforcing sanitary measures in Calcutta; and those European residents, of whom Mr. Justice CUNNINGHAM himself was one of the most energetic, who pressed upon the Government the necessity for active intervention.[1] The letter of Mr. CUNNINGHAM points out forcibly the failure of the Municipal Corporation of Calcutta, apparently from want of knowledge of, and belief in, sanitary science, to carry out to a sufficient extent the measures necessary to ensure the health of the population; for, though they have effected some improvement, much yet remains to be done. "While cholera has raged in the insanitary portions of the city—the cholera mortality in some wards attaining for some weeks ratios beween 18 and 36 per mille per annum—the properly conserved portions of the town have enjoyed practical immunity from the disease."

The measures proposed by Mr. CUNNINGHAM for the improvement of the sanitary administration in India are—1. The creation of a body possessed of sufficient knowledge, and armed with sufficient authority, to superintend and control the municipalities in the performance of their duties, and to enforce that performance in the case of persistent neglect or contumacy. 2. A recurrence to the system of Government itself lending the necessary funds to municipalities who have to borrow in order to carry out structural arrangements. 3. The creation of a branch of the Public Works Department whose special duty it shall be to assist municipalities in important projects of drainage or water supply, and to test the soundness of projects. 4. The creation of a staff of officials, sufficiently strong in numbers, ability, and resources, to conduct scientific investigations into disease with the precision and completeness that such inquiries necessitate, and which their importance justifies. He comments, with much justice, upon the inadequate and niggardly arrangement at present existing for scientific inquiries into sanitary questions, which appear to devolve upon "a single official, who receives an honorarium of £30 a month for devoting to microscopic research the small leisure left by his other professional duties. Even this scanty provision is intermittent." We most sincerely trust that the Government may see its way to a proper adjustment of the administrative machinery necessary for the promotion of the health of the people by the adoption of well-considered and efficiently worked sanitary measures. It is a matter which may involve a considerable outlay, but an outlay which we have no doubt will be more than repaid by its results. The improvement of the health of the people is an imperative duty of the Government, and one with which no paltry question of reduction of expenditure should be permitted to interfere. A liberal but judicious expendi-

[1] See THE LANCET of August 9th and 23rd, 1884.

ture for such a purpose would prove ultimately to be true economy, tending to promote the prosperity of India and the moral and physical well-being of its population.

THE custom of using unqualified practitioners, especially in branch practices, and in situations where the assistant cannot have any guidance or supervision from the principal, has had many severe discouragements of late, but none, perhaps, more so than one involved in a judgment in the Queen's Bench by Lord COLERIDGE and Justice DENMAN in the case of HOWARTH *v.* BREARLEY, reported pretty fully in *The Times* of June 13th. The question raised by the case was whether for services rendered by an unqualified assistant employed by a registered medical practitioner the principal or his representatives could recover in a court of law. The case was begun in an action in the Salford court by the assignee of Mr. FITZMAURICE, a qualified medical practitioner at Bury, to recover from a person near there a sum of £18 12*s.* for medical attendance and medicine for a period from 1880 to January last. It was admitted that the actual attendance was by an unqualified assistant, Mr. FITZMAURICE himself taking no part. At the first trial it was objected that under the 21 & 22 Vic., c. 90, the plaintiff could not recover, as the attendances were by an unqualified person. The judge took this view, and directed a nonsuit. On the present occasion there was an application to the Court of Queen's Bench by way of appeal from that decision. There was a sharp difference of opinion, or, at least, of argument, sustained with much liveliness, between Mr. WILLES CHITTY and Lord COLERIDGE. Mr. CHITTY maintained that the attendances in law were by the principal. He admitted that there was no personal attendance on the part of the principal, but maintained that through the agency of the assistant, who lived at a branch house, he attended the patient. He admitted that the unqualified assistant could not recover for this, but contended that the principal could. Lord COLERIDGE, with much animation, controverted this view, which, he said, would defeat the whole object of the Act, which *is to prevent unqualified persons from acting*. This is, perhaps, rather too absolute a way of putting it. If the Act of 1858 had been expressly designed to prohibit unqualified practice, it would have been very diff-rent in its penal clauses from what it is. But it certainly gives such persons no power of recovering fees. It does not recognise their right to make charges, and it prohibits the false use of medical titles, and in this way it discourages unqualified persons from practising; but it does not absolutely prohibit them. Lord COLERIDGE was decided, however, in his view. He entirely supported the judge below who had directed a nonsuit. The medical man whose representatives sued had not rendered the service sued for, and he could not recover, and therefore the nonsuit was right. Mr. Justice DENMAN was equally strong in supporting the non-suit. He said: "The medical man here did not show that he had rendered the services sued for, and so he could not recover. The services sued for were rendered by another person, who was unqualified, without any consultation with him. It was urged that this person acted as his servant; but a qualified practitioner could not thus authorise an unqualified person to act for him in medical attendance. It would be a mockery to apply the doctrine of master and servant to such a case, and it would entirely defeat the intention and object of the Act." The appeal was accordingly dismissed.

This judgment will clear the air a good deal. Some previous cases seem to have been decided in an opposite sense, or at least in a doubtful sense. But the opinion of Lord COLERIDGE and Mr. Justice DENMAN, given with so much clearness, is likely to settle this question. And, indeed, any other view of the case would be as disastrous to the profession as it would be absurd. If a medical man were at liberty to officer half a dozen branch houses or dispensaries with as many unqualified assistants and to enforce payment for their services in a court of law, the practice of unqualified persons might be indefinitely increased and encouraged to the great injury of the public. Such a doctrine would not only cover conduct which the Medical Council has severely condemned, but it would legalise it. We are much gratified, therefore, at the decision given in the High Court, from which it follows that charges for all services rendered by unqualified assistants alone cannot be recovered.

Annotations.

"Ne quid nimis."

THE APPROACHING COLLEGE ELECTION.

THE following gentlemen are candidates for the vacancies on the Council of the Royal College of Surgeons caused by the annual retirement of members:—Mr. John Couper (Memb. 1859; Fell. 1861), of the London Hospital; Mr. Alfred Willett (Memb. 1859; Fell. 1862), of St. Bartholomew's Hospital; and Mr. Brudenell Carter (Memb. 1851; Fell. 1864). Sir T. Spencer Wells, Bart., and Mr. Jonathan Hutchinson, two of the members retiring in rotation, seek re-election; but Mr. John Wood will not again come forward. The last day for the reception of nomination papers was Monday last, *June* 13th, and not *July* 13th, as was accidentally stated in our last issue. The voting takes place on July 7th, at 2 P.M., in the library of the College.

SUCCESSFUL REMOVAL OF A TUMOUR FROM THE SPINAL CANAL.

ON Thursday, June 9th, Mr. Victor Horsley removed a tumour from the spinal canal of a gentleman aged forty. The diagnosis of compression of the spinal cord by a morbid growth was made by Dr. Gowers, who saw the patient with Dr. Percy Kidd. The patient was suffering from paraplegia, which commenced gradually six months ago, and from pain round the chest of four years' duration. Sir William Jenner afterwards saw the patient, and confirmed the diagnosis. Dr. Gowers suggested that an attempt should be made to remove the growth. From the history of severe neuralgic pain in the back and along the course of the left sixth dorsal nerve which preceded the paraplegia, it was considered probable that the growth commenced in the posterior root of the nerve, and afterwards produced pressure on the cord. The operation was performed by a long incision in the mid-line of the back, having its centre about the fifth dorsal, down to the spines of the vertebræ. The muscles were cleared off from the laminæ and retracted. The spines were removed by bone forceps, and then the laminæ trephined. An incision was made

through the membranes and the cord examined, a tumour about the size of the tip of the little finger being eventually found on the posterior root of the nerve about the level of the third dorsal vertebra. This had pressed the cord forwards and to the right, producing a deep depression in its substance. It was removed with the nerve to which it was attached. The incision through the membranes, which was at least three inches long, was not sutured; the wound in the soft parts was closed with sutures and drained. Strict antiseptic precautions were taken at the operation. Since the operation there has been no rise of temperature, and the pain has diminished. The painful spasmodic action of the muscles of the lower extremities from which the patient suffered has diminished, and there has been less rigidity of the legs, but the paraplegia continues. The growth, which was of a pinkish colour, elastic and vascular, has not yet been submitted to microscopical investigation.

EXPERIMENTAL NEURITIS.

HYPODERMIC injections of ether are now so frequently employed, and with such good effect, that we are apt to forget that occasionally nervous lesions result from their use. Cutaneous anæsthesia, disorders of motility, and even serious trophic lesions have been observed, and the experimental researches of Arnozan and Salvat proved that the mechanism of these lesions was a peripheral neuritis. MM. Pitres and Vaillard find, however, that some of the peculiarities of the action of ether on the peripheral nerves must have escaped the attention of the last-mentioned observers.[1] We reproduce the salient points of this interesting communication. When an injection of half a cubic centimetre of sulphuric ether is made deeply into the cellular tissue which separates the muscles on the back of the thigh of a guinea-pig, there always results a paralysis of sensation and motion in the parts of the limb situated below the level of the injection. Generally the anæsthesia occupies the two outer toes and the outer aspect of the leg, but it may sometimes affect all three toes and the whole of the skin of the leg, probably because the injection has traversed the muscular interstices and attacked the crural nerve. After a few days these phenomena may be accompanied by œdematous swelling of the foot, ulceration of the toes and tarsus, falling off of the nails, &c. The anæsthesia and the paralysis are manifested immediately after the injection, and in a short time they have reached their fullest extent, and, once developed, they persist for several weeks or even months without either increasing or decreasing in severity. In order to study the mechanism of the action of ether, M.M. Pitres and Vaillard have made a histological examination of the segments of the nerve situated above, below, and at the level of the injection of ether, and these examinations have been made on the sciatic nerve from animals after a survival of some hours, days, or several weeks. Above the zone of injection the nerve has always appeared absolutely normal; nothing like an ascending neuritis has been observed. At the level of injection the alterations varied according to the length of survival of the animal. When the nerve was examined some hours only after the injection, the nerve being teased after maceration for twenty-four hours in a solution of osmic acid, and coloured by picrocarmine, eosine, or hæmatoxylon, the myeline is found to have become blackened, and rather different from the bluish-black tint of normal nerve fibres. Further, the lateral fissures are no longer to be seen, the axis cylinder and nuclei of the interannular segments are not distinct, and it seems as though the nervous elements had become altered in their chemical composition. If the animal be killed six, eight, or ten days after the experiment, the segment of affected nerve shows the same changes; it is only after the fifteenth day that the altered fibres begin to undergo notable modifications: the myeline breaks up, and is slowly absorbed. Below the level of the injection the nervous tubules proceeding from the nerve trunk affected by the ether undergo the Wallerian degeneration, which is well marked on the fourth day. The ether is therefore regarded as causing an immediate necrosis of the nerve trunk at the site of injection. This was also shown by an experiment in which the nerve was first divided at its exit from the pelvis, and on the same day ether was injected into the lower part of the thigh of the paralysed leg. Wallerian degeneration was found eight days after in the nerve, between the point of section and that of injection, and also below the latter, but in the area of injection the nerve had not undergone degeneration; the myeline was continuous and confounded with the axis cylinder, and there were no traces of nuclear multiplication. Other experiments showed that an injection of the sulphuric ether could arrest the Wallerian degeneration at any point in its career. The same facts hold good with nitric and acetic ethers for guinea-pigs, rabbits, and cats. Hydrochloric ether has less severe effects. Formic and valerianic ethers have caused considerable local swellings and gangrene, thus preventing a proper examination of their action on nerves. The authors suggest that, in cases in which neurectomy or neurotomy is needed, injection of ether in the neighbourhood of the nerve trunk might serve equally well.

[1] Gazette Médicale de Paris, No. 22, 1887.

THE HOVE INFECTIOUS HOSPITAL.

WE have received a further communication from Mr. Henriques as to the Hove Infectious Hospital. We do not publish it because it no longer deals with the defects referred to previously; it merely brings forward a few fresh points of objection to the institution. One relates to the use of earth-closets, it being alleged that the contents are not buried "at anything approaching to a sufficient depth to be safe." Surely such a trivial point of local administration can be altered by an order that the man in charge is to dig deeper. Then it is stated that there is no system of drains. The drains themselves we believe to be well and properly laid, but we agree with Mr. Henriques in so far as the absence of a proper system for disposing of their contents is concerned. There is ample ground for this, and here amendment is certainly wanted. Then the water supply is complained of. The supply is derived from a neighbouring public reservoir, and, owing to the levels, it has to be stored in a second reservoir on the hospital site, and to be pumped by horse-power into the hospital cisterns. We are sorry that, owing to the position of the buildings, such an expense should be necessary, but we fail to see why such a matter should be held up as an objection to the hospital itself. "Stored water," we now learn, "is *never* pure," and it "*may*" become contaminated. These are not grounds of objection which merit the publicity which this question has received. In every way we regret the action taken by Mr. Henriques and his supporter General Shute, and in one respect it has been scarcely courteous. Thus, the latter publicly asserts that our comments were inspired by a local partisan, and hence to quote them in favour of the views of the medical officer of health as to the hospital is "simply giving the public credit for being idiots." And Mr. Henriques, referring to the suspicious character of certain dates, regards our comments as "inspired *ab extra*." We may state that our comments have been the result of a personal visit to this partial hospital provision for infectious diseases in Hove, and of a knowledge as to the principles properly governing such provision—which, we believe, is not inferior to that possessed by those who have done so much to bring the institution into public disrepute.

THE LATE DR. WAKLEY.

THE Executors of the late Dr. James Goodchild Wakley request us to note that he devised his freehold residence at Longcross, Chertsey, Surrey, with its stables, outbuildings, gardens, and pleasure grounds, about eight acres in extent, to University College, London, as a memorial to his late father, Thomas Wakley, Esq., M.P., and in commemoration of the establishment of THE LANCET, of which the late Dr. Wakley was for so many years the Editor and part Proprietor. The expressed object of the devise was that the premises might be used by the College as a Home for the reception and treatment of Convalescent Patients in connexion with University College Hospital, to be called the "Wakley Convalescent Home." He also bequeathed to the College the pictures and prints in the house, to be kept there for the amusement of the patients; and a pecuniary legacy of £1000, to be expended in the maintenance and support of the Convalescent Home at the rate of £200 per annum for the five years next succeeding his death. The Solicitors of the Executors inform us that the premises, with the pictures and prints, have been handed over to the College, and that the legacy has been paid. The late Dr. Wakley also made several other charitable bequests, all of which have been paid or set apart. Notably—to the Hospital Sunday Fund (which, in so far as London was concerned, was initiated by the late Doctor in his capacity as Editor of THE LANCET), £1000, in addition to two previous donations of a similar amount; to the poor of Sunningdale, £200; to the poor of Chobham, £500; to the Bisley Refuge Farm School, £500. And provision was made by the Doctor in his lifetime for the continuance for some years of the religious work among the poor in the neighbourhood of his residence which he had for long superintended.

CHOLERA FORECASTS.

WHETHER or not the German journals are warranted in anticipating a return, in greater force, of the cholera invasion that hovered round Mayence last autumn, they cannot certainly be blamed for treating June and July as the test months for the reappearance of the epidemic. A dry spring like that which heralded the cholera raids on Munich in 1836, 1854, and 1863 has no doubt been absent this year, but the suddenness of more recent explosions of the malady has lessened the importance to be attached to that condition. A vigilant prophylaxis, therefore, is all the more justifiable—a prophylaxis not guided by the worn-out traditions of French or Italian sanitation, but by the counsels of that sagest of hygienic strategists, Max von Pettenkofer. "Zum Gegenwärtige Stand der Cholerafrage" ("On the present Aspect of the Cholera Question") is the title of a series of papers just concluding in the *Archiv für Hygiene* (Munich: Oldenbourg), from the pen of that great authority, and the wholesome truths they inculcate must, if well acted on, "place Germany in as unassailable a position hygienically as her War Office headed by von Moltke has placed her in strategetically." Readers of THE LANCET will remember that von Pettenkofer, even after the second cholera conference at Berlin, saw no reason to modify his non-contagionist view of the origin and spread of the disease. While recognising with M. Koch a cholera bacillus, and *ex hypothesi* accepting that micro-organism as the parasitic basis of the malady, he denies the conclusion sought to be deduced from this theory that cholera is communicated by the contagium of the bacillus Kochianus. Malaria, he contends, has also a bacillus or a germ (vegetable or animal) for its basis, but it does not infect the human subject by contagium; it passes from the soil into the air, whence it reaches the organism through the lungs. Epidemiologically considered, cholera does not effect its foothold in localities by man-to-man contagium. Lyons, Innsbruck, Salzburg, the asylums to which cholera patients by the thousand have fled, have never contracted the disease; in fact, for really contagious diseases no localities can ever be called exempt, as these cities have been from cholera. It is, thinks von Pettenkofer, to the malarial group of epidemics that we must turn for the true analogy of the origin and spread of cholera, and the prophylaxis which that analogy prescribes—attention to the conditions of subsoil when operating in connexion with season—will be found to cut at the root of the outgrowth and spread of the disease. Contagionism with its isolation, its sanitary cordons, its quarantine, its disinfectants, has achieved nothing but *fiasco*. Witness 1884, when cholera, non-existent in Egypt, non-existent in Europe, exploded in France, and almost simultaneously, at Toulon and Marseilles, all M. Fauvel's contagionist machinery notwithstanding; witness the same year and the year following in Italy, where every contagionist precaution was enforced with fanatical strictness, and where nevertheless the malady had everything its own way in the frightful outbreaks. Yet so wedded was M. Fauvel to his contagionist theory, that on his death-bed he solemnly declared that the epidemic that had decimated Toulon and Marseilles could not have been Asiatic cholera because it proved intractable by his contagionist preventives! The practical lesson deduced from von Pettenkofer's findings is this: vigilant attention to the subsoil as to drainage, vigilant attention to water supply, such as within the next decennium Germany relies upon to make her as exempt from cholera visitations as her frontier is from attack. "Forearmed hygienically against the one and strategically against the other," she reiterates her claim to look on both with equanimity.

EPSOM COLLEGE.

THE alterations in the by-laws of this College which were proposed and carried at the last annual meeting establish the institution on a new basis. Hitherto Epsom College has been a class school confined almost entirely to the sons of medical men. A few day-boys were admitted, and only a small percentage of sons of others than medical men were among the boys. This limitation of Epsom College has done much to check the development and extension of the school. Parents have long since recognised that to limit a school to a particular class tends to curtail a boy's intellectual powers, and lessens his social advantages in after-life. Thus, other public schools—notably Wellington College and Marlborough—have expanded from the strictly military foundation of the one and the clerical foundation of the other into large general public schools. This should have been the object at Epsom. From the foundation of the College the disposition has been to make the medical benevolent feature of the foundation too conspicuous. The Epsom boys had at all times before them a not very encouraging emblem in the form of aged professional pensioners located in almshouses adjoining the College. These are found to be a mistake, for the occupants, if given choice, prefer their small pension and residence elsewhere to the precincts of Epsom College. Thus the almshouses are being gradually vacated, and are becoming utilised for school purposes. It would be to the interest of the College, and not to the disadvantage of the pensioners, if the whole of the almshouses were diverted to school purposes, and the proceeds arising therefrom directed to the benefit of the aged pensioners resident elsewhere. Hitherto the College, like some other public schools, has been weighted by a heavy debt. On his retirement from the treasurership of the College, it must have been a great satisfaction to Mr. Francis Hird to have been able to announce that during his period of office this debt had been entirely wiped out. Dr. Holman of Reigate succeeds Mr.

Hird as treasurer to an institution now unembarrassed and commencing a new era in its existence. Epsom College henceforth is to aspire to be a great public school, fitting boys not only to enter the medical profession, but other professions and the universities. Dr. Holman, on entering office, pledged himself to the governors present at the annual meeting that the sons of members of the profession should reap the full advantage of any extension of the school, and *this, too, at only a fraction above the prime cost of their education.* We place on record this assurance of Dr. Holman in order that it may not be lost sight of in what we hope will be a successful phase in the history of Epsom College. Each member of the profession is as much interested in doing for Epsom what he can, as military men have been in Wellington and clergymen in Marlborough. At these schools masters have been found ready to build boarding-houses for boys, and the same has been done at Charterhouse and Winchester. Epsom College may be extended in the same way, to the advantage of the foundation. But to this end scholars must be forthcoming from outside the profession, and at a rate of remuneration such as shall be a source of profit to the institution. The present happy position of Epsom College cannot but be highly gratifying to the members of the family of the late Mr. Wakley who are now conducting this journal, of which he was the founder. It will be remembered that a large memorial fund, subscribed after his death in 1862 by members of our profession, was presented to Epsom College, to establish a scholarship which should bear his honoured name.

ZIEMSSEN ON COLD WATER TREATMENT OF TYPHOID.

The *Journal of the American Medical Association* for May 14th contains a full abstract of a lecture on Antipyresis and Antipyretic Methods by Professor Ziemssen, director of the Medical Clinic of Munich, especially in regard to typhoid. The lecture is very interesting and earnest. It claims a high value for the treatment by baths, and expresses a hope that after the favourable results of active antipyresis physicans will not lapse again into the therapeutic indifference of the Vienna School. Of all antipyretic measures Ziemssen considers hydrotherapy the chief: first, because it combines in itself all the attributes of a remedial measure; and, secondly, because its action on the fevered organism may be varied to any degree. The benefit of such treatment is not confined to typhoid, but is also to be noticed in other febrile diseases, such as pneumonia, erysipelas, and acute phthisis. The cold and lukewarm baths act, he thinks, by cooling the blood at the periphery, the vital fluid being returned to the internal organs with an indescribably pleasant as well as beneficial effect. Sleep is favoured. There is an improvement in digestion, so that the patient can be fed better. On the circulation the effect is to contract the peripheral vessels, the heart works more slowly, the vessels show an improved tension, dicrotism is decreased, and the elasticity elevation returns. The respiratory apparatus is excited by the peripheral irritation to deeper and slower movements, cough is more effective, and in this way bronchial obstructions and consequent atalectasis and catarrhal pneumonia are better avoided than by the impracticable advice to turn a fever patient on his side. Ziemssen gives two or three statistics to show the effects of the cold and the lukewarm bath treatment respectively. He takes his illustration of the strictly cold bath from Vogl, physician to the Garrison Hospital at Munich. He gives (with a rectal temperature of 102·2° F.) a cold bath at 63·5°, lasting a quarter of an hour, about every three hours, winter and summer, in unheated rooms, with windows open day and night. This is bold treatment, and for soldiers (for the most part with young and picked lives) does well. There were only 52 deaths in 610 cases, or 5·4 per cent. Murchison gives the mortality of typhoid in the London Fever Hospital, after deducting cases which died within forty-eight hours of admission, as 15·82 per cent. Ziemssen compares Vogl's practice with strict cold water treatment with Naunyn's in a civil hospital, who, with an axillary temperature of 103·1°, taken every three hours, gives usually eight baths in twenty-four hours, generally between noon and midnight, at a *not lower* temperature than 72·5°. He divides baths into *cold* (72·5° to 81·5° F.; duration, five to ten minutes), *lukewarm* (from 81·5° to 90·5°, ten to fifteen minutes), and *warm* (90·5° to 95°). The warm are given in the later stages in very active delirious patients with great restlessness and muscular weakness. By this treatment Naunyn lost 10 of 145 cases, or 6·9 per cent., "certainly a favourable percentage." Ziemssen himself says that for twenty years he has recommended, for private practice, the gradually-cooled bath. The patient is placed in a warm bath of 90·5° or 86°. The water is continually poured over him with hands or sponge. While this is being done, cold water is very slowly poured in at the foot of the bath tub, and the water reaches gradually a temperature of 77° or 72·5°, until the patient's teeth chatter, or he declares he can stand it no longer. He is then taken out and placed in a blanket previously warmed, and wrapped in it without being dried. In this he remains in the greatest comfort for fifteen minutes, is then rubbed dry, and allowed to sleep. Ziemssen, like a wise physician, recommends the study of the peculiarities of individual cases. While lauding the bath treatment, he speaks respectfully of antipyretic drugs.

STATISTICS OF SUICIDE.

THE *Chronicle*, an enterprising journal in New York, has made a very painstaking compilation of statistics relating to suicide, culled from the daily press of America over a period of five years. In this way a large number of cases has been brought together, and although the sources of information are not always the best or the channels through which it flows the most trustworthy, yet the result presents many interesting features, and well repays the compiler's trouble. Among the most striking of the facts brought out is the very obscure influence of the season of the year upon the prevalence of suicide. It would be a curious experiment to poll a constituency of ordinary people for opinions on this point. We much suspect that autumn or winter would commonly be credited with being best adapted to develop and foster suicidal tendencies. In America it would seem that summer enjoys this unenviable pre-eminence. And not only so: the summer months all rank high—the highest in the year; but, actually, the highest of them all is "the flowery month" of June. On merely psychological grounds, it would seem quite unintelligible that suicide should be at its maximum just as spring is making way for summer. The reason must be sought elsewhere—in the organism and its environment; and possibly the circumstance that a very large proportion of the suicides are agriculturists affords a practical explanation. At least, this is the season of the year, just before harvest, when a farmer is likely to find himself most hardly pressed for money. The demand for money for agricultural purposes, which is so well known in our own money market as a regularly recurring feature of that season of the year, bears testimony to the existence of a state of things which, indeed, may be seen by the help of merely *à priori* considerations to lie in the natural and necessary course of events. It is very conceivable that this pressure in a country like agricultural America, where banking facilities, compared with ours, are very limited, may be pronounced enough to affect quite appreciably the suicide record of the agricultural class. This explanation does not seem, however, to be fully adequate, for, giving to

it the fullest weight possible, we still are face to face with the anomaly that a special circumstance is made to explain a very general feature of the figures given. It is probable that the truth lies deeper still in the nature of things and men, and must await for its full disclosure the more complete analysis of the relations between mental states and pathological conditions, and again between these latter and the season of the year. In the meantime these seasonal figures, being among the most reliable, presumably, that our contemporary has put together, are of sufficient interest to warrant reproduction.

Distribution in seasons of 8226 American Suicides.

Spring.		Summer.		Autumn.		Winter.
March ... 649	.....	June ... 833	.....	Sept. ... 781	.....	Dec. ... 637
April ... 687	.....	July ... 746	.....	Oct. ... 681	.....	Jan. ... 538
May... ... 706	.....	Aug. ... 807	.....	Nov. ... 600	.....	Feb. ... 571
Total, 2042		Total, 2386		Total, 2062		Total, 1736

Of the suicides brought under review, nearly 6000 have been classified under causes. The results thus brought out agree more nearly with one's expectations. Insanity, of course, heads the list. Family trouble comes next, while business trouble, dissipation, and disappointed love rank almost together for the third place. So far all is commonplace, but the list contains, as would be supposed, some eccentricities. The refusal of a pension might easily suggest suicide to a severely logical mind, but it is passing strange that self-destruction should be chosen as a refuge from assassination, yet two such cases are recorded; while in one instance a source of trouble is assigned so utterly trivial as a *pimple on the nose!* But more striking, upon the whole, are the results brought out by classifying according to occupations. Strangely enough, farmers contribute by far the largest quota. Possibly the number is not disproportionate to the numerical strength of the farmer class in America—for these proportions are not worked out,—but it is singular to find them outnumbering the saloon-keepers, merchants, labourers, and clerks put together. Yet so it is. Among other classes, that of courtesans is sadly and suggestively conspicuous. For the rest, the list, though long and varied—for no condition is free from the occasional temptation to suicide,—contains nothing of special interest or in any way peculiarly noteworthy. The problem of the seasonal variation, however, appears likely to reward careful examination.

THE PHYSICALLY DETERIORATING INFLUENCES OF CIVILISATION.

AT the meeting of the Anthropological Institute on the 24th ult. (Mr. Francis Galton in the chair), Dr. George Harley, F.R.S., gave a discourse on the "Relative Recuperative Bodily Powers of Man living in a rude, and Man living in a highly civilised, state," in which he brought forward a number of hitherto unpublished, though mostly well known facts in support of his contention that the refining influences of civilisation had not been altogether an unalloyed boon. Cases were cited by the speaker in support of his view that, while man's physique as well as his mental powers had increased during his evolution from a barbaric condition into one of *bienséance* (his stature and his strength, as well as his length of days, having been increased *pari passu* with this improvement gradually), he has deteriorated in his bodily power, either to resist the lethal effects of injuries, or to recover from them as rapidly and as well as his less favoured barbaric ancestors. Nay, more: the cited illustrative cases showed it apparently to be a fact that all the appliances of civilised life which most potently minister to human comfort and human enjoyments have a deleterious enervating effect on the animal frame, as was demonstrated (said Dr. Harley) both by striking examples drawn from gipsy and tramp life, and also from domesticated animals, such as the sheep, the ox, the horse, and the dog, in all of which species high breeding was shown to conduce to a marked diminution in the bodily recuperative capacity. The speaker further maintained that man universally had naturally a high standard of bodily recuperative power inherent in his constitution, and that the present higher bodily recuperative capacity shown to be possessed by all men living in a rude state, whether in the form of savages, like the South African Kaffir or the North American Red Indian, or the gipsy or tramp wanderer among ourselves, arises from the fact that the refining influences of a higher civilisation materially diminish the animal recuperative capacity; and further that, although all men are of the same flesh and blood, their different modes of life and different social habits have induced in them very varied degrees of nerve sensibility, as well as of recuperative bodily power.

EXTREMES OF TEMPERATURE.

IT is not without cause that Englishmen so ceaselessly grumble at the weather. There is no stability, no moderation about our climate. It is either very cold or very hot; or if the general atmosphere be fairly comfortable the bitter north-east wind makes us miserable. At this moment the delicate have barely recovered from the sufferings inflicted upon them by a cruel season, which had no legitimate claims to be called Spring, when they are assailed with the plague of summer heat. There is really no rest or peace for any save the strongest in this "tight" but ungenial "little island" of ours. It is vain to preach caution. How can the most careful of mortals avoid draughts when the ordinary temperature in-doors is between 70° and 80° F.? Windows must be thrown open, and the air will rush in, which is relatively, if not absolutely, of such lower temperature as to give the sensation and do the deadly work of cold draughts. So with clothing. In the sweltering heat it is impossible to wear wraps which are nevertheless necessary to protect the susceptible from those currents of air that rush up side streets and round corners. If, regardless of comfort, the weakly consent to endure these wraps, they cannot do more than in a very moderate way defend themselves against exceptional perils. Perhaps the wisest—certainly the happiest—are those who have never, by pampering their susceptibility, rendered themselves the creatures of conditions in the presence of which it seems impossible to be either contented or safe.

SANITARY WORK IN PETERBOROUGH.

A REPORT which was presented to the Town Council of this city by the inspector of nuisances in March last shows a very discreditable state of things as regards refuse removal. We are informed that house refuse is periodically removed from 332 houses in a city which in 1881 had a population of 21,212, and it is added that great difficulty is experienced with occupiers of small tenements who allow their ashpits to be filled to overflowing before they will have them emptied. We are bound to infer that the inspector is here speaking of houses other than the 332 as to which periodic removal is in force; and we can only wonder what else could be expected than the grave result which he deplores, and which ensues "in the thickly populated and poorer parts of the borough." It is a primary duty of a sanitary authority to see that such refuse is periodically removed from the neighbourhood of all dwellings within their jurisdiction, and this at very short intervals. Occupiers should never be held to have a voice in determining the frequency of such removal unless they have a piece of garden ground on which such refuse can be properly deposited at least once in every week. Where, as in Peterborough, this is not possible, it is the obvious duty of the

sanitary authority to undertake this duty themselves; and it should be remembered that it is precisely the poor (who can neither pay nor arrange for the frequent visit of a scavenger, and who prefer to wait until there is a good load of stuff to remove) who most need the intervention of the authority in such a matter. Whatever the system or want of system is that prevails in Peterborough, it is evidently one that favours the retention in the vicinity of dwellings of the very materials which a sanitary authority should aim at getting rid of at the shortest practicable periods.

COCAINE AND ITS USE AS A LOCAL ANÆSTHETIC IN DENTAL SURGERY.

COCAINE having now taken a place in the Dental Pharmacopœia for various uses, it was desirable that some *résumé* of the literature of the subject, especially with reference to the injection of the drug for producing anæsthesia, should be made, and Messrs. Cunningham and Hern are to be congratulated upon the exhaustive character of their respective communications to the Odontological Society. Both papers cover much the same ground, and the conclusions arrived at are very similar. With regard to the physiological action of cocaine, much experimental research has been performed by von Anrep, Mays, Biggs, Hughes Bennett, and others; and although the results recorded are not quite uniform, yet these discrepancies are readily explained by the different methods of investigation, and the varying degree of susceptibility to the drug of the individual animal or person. Generally, it may be concluded that cocaine produces the following effects:—On respiration it first increases the number of respirations, then decreases them; in larger doses death ensues from paralysis of respiration. On the heart it has a depressant action, reducing the force and frequency of the pulsation, finally arresting the auricles and ventricles in diastole. In small and large doses it produces at first constriction of the blood-vessels, with a rise of blood pressure, succeeded by a considerable fall. Locally applied, cocaine also produces contraction of the small arteries. On the nervous system, small doses increase the reflex irritability of the cord; large doses reduce it considerably. On nerves, small doses heighten the irritability of the sensory fibres, but exert no effect on the motor fibres; larger doses completely paralyse sensory filaments and greatly diminish the irritability of motor. Salivary secretion is markedly deficient in many, and the temperature raised in some cases. A careful examination of the very large number of cases of cocaine injection now collected has led both Mr. George Cunningham and Mr. Hern to express very much the same views, which we quote in the latter's words. "In judging of the practicability of the employment of cocaine as an anæsthetic for extractions, one has to weigh the advantages and disadvantages of its employment, and compare it with those agents for the production of general anæsthesia now in use. After doing so, I am led to the following conclusion—viz., that as an agent for general use in extraction:—1. The physical barrier to injection which the bony alveolus interposes. 2. The pain, however slight, due to the puncture of the syringe. 3. The mental suspense due to the necessity of waiting several minutes between the injection and operation. 4. The full consciousness under which the operation is performed. 5. The varying idiosyncrasy of patients with reference to the drug. 6. The inconstancy of production of complete anæsthesia. 7. The necessity of limiting the dose, so that only one part of the mouth can be safely anæsthetised for the same patient at a given time, and that only such as to allow of one, or at most two, teeth being removed. These all combine to relegate the drug to a subordinate and secondary position, leaving nitrous oxide in the possession of the field as *facile princeps* for the vast majority of such operations. Other than for extraction there are various operations in which cocaine can be beneficially employed."

THE HEALTH OF THE CROWN PRINCE OF GERMANY.

ON Wednesday, June 8th, Dr. Morell Mackenzie, in the presence of the Crown Princess and Dr. W. Wegner, removed a second piece from the growth in the left vocal cord of His Imperial Highness. At a consultation held the following Friday Professor Virchow read a most fully detailed report of his examination of the growth, which he described as a "pachydermia verrucosa." He stated that the portion submitted to him showed a great increase in the number and size of the epithelial cells, some of which were empty, whilst others contained colloid matter, also that the papillæ were larger and more numerous than in normal mucous membrane. Numerous bloodvessels and nerves were found in the growth, but we believe no morbid products were present in the submucous areolar tissue. Professor Virchow gave a most favourable prognosis. In view of Professor Virchow's statement there is reason to hope that the Crown Prince will in time be entirely cured, though it must not be forgotten that recurrence is a characteristic feature of these papillary growths. At the urgent request of Dr. Mackenzie the Crown Prince has ordered a detailed report of Professor Virchow's examination to be published, and Dr. Virchow has informed us that this report will appear in full in this week's issue of the *Berliner Klinische Wochenschrift*.

DEATH FROM OVERCROWDING.

ALTHOUGH overcrowding is pretty general in manufacturing towns, we seldom hear of a death from this cause. A case has been recently investigated by Mr. Rowbottom, the coroner for Wigan. It transpired at the inquest that the deceased, a young man of twenty-two years of age, was a labourer at some ironworks in the neighbourhood, and retired to rest on the night of the 6th inst. in his usual health. He was called early next morning to go to his work, but stated he would not go that day. The other occupants of the room (lodgers) went to their work, and he was left alone. At 9.30 A.M. he complained to the landlady that his throat was sore, and she applied a poultice. At 12.30 noon she sent for Dr. Brady, who at once went to the man, and found the atmosphere of the room in which he was overpowering. The window was opened, and, after examining the man, he came to the conclusion that he was suffering from the effects of mephitic gases; his throat was of an intense purple colour, the neck slightly swollen, his general appearance indicated inefficient aeration of blood, and there were spasms at times of laryngismus stridulus. Dr. Brady gave directions as to treatment and left the house. The man died shortly afterwards. He made an attempt to vomit, fell back in bed, and died as if choking. Dr. Brady refused a certificate and communicated with the coroner, desiring a second medical man at the post-mortem. The coroner ordered a post-mortem, and asked Mr. Berry to be present with Dr. Brady. The post-mortem appearances were those of poisoning by carbonic acid gas. The trachea was intensely congested, as were also the bronchial tubes. The right side of the heart was filled with very dark fluid blood; the lungs and kidneys were congested, and dark in colour. The mucous coat of the stomach was in appearance as if stained with port wine lees. All the organs were healthy, with the exception of this venous congestion. There was nothing else to account for death. It was shown at the inquest that in this house, with two rooms above and two below (and these small rooms), eleven persons lived—a man, his wife, five children, and

four grown-up men lodgers. In the room in which Dr. Brady saw the man on his visit, were three beds. The room was 7 ft. high, and 10 ft. 9 in. by 11 ft. 8 in.: making allowances for recesses, and deducting space occupied by furniture, a cubic space of 842 ft. Seven persons had slept in the room, but the belief was that a larger number occupied it. The landlady stated that the deceased had slept in the adjoining room, which was a little less in cubic space, and contained two beds for the lodgers. The jury found a verdict that the deceased died from asphyxia caused by overcrowding. In manufacturing towns like Wigan persons occupy houses and take in lodgers, but, not having these registered, they evade the Lodging Houses Act, and thus escape inspection. The sanitary authority, however, should strive to get houses like this one under its control.

THE NATURAL HISTORY OF WELL WATERS.

ANOTHER important contribution to science comes to us from the celebrated laboratory and experimental farm at Rothamsted. Sir J. B. Lawes and Dr. Gilbert, whose labours, spread over a long period of time, have done so much for agricultural chemistry, did wisely when a few years ago they took Mr. Robert Warington into their scientific partnership. The present research stands in the name of the younger worker only, although he carries on the work and has doubtless been aided by the counsel of his distinguished *confrères*. Mr. Warington's paper occupies more than fifty pages of the current number of the journal of the Chemical Society. It will be studied by all interested in sanitation or scientific agriculture, and it contains such a mass of facts and tables that it is not possible to give any adequate idea of it in a narrow compass. Moreover, there are as yet no great generalisations to record, but chiefly a mass of statistical evidence which grows more detailed and accurate, and therefore more valuable, every year. Fair inductive reasoning is, however, applied to the facts. The first section deals with the rain water of Rothamsted, which has been systematically collected and measured since 1853, and which is evidently the basis of the whole inquiry. The average proportion in one million parts of this water is of chlorine 2·01, of sulphuric acid (SO_3) 2·52, of ammonia 0·35, and of total combined nitrogen 0·67. The last item is equal to about 4·4 lb. per acre per annum. Then comes a consideration of the drainage water. Ever since 1870 several isolated patches of prepared soil, consisting of loam and flint resting on a clay subsoil, supported on perforated iron plates and protected laterally by impervious walls, have been kept free from vegetation and manure. The beds are respectively twenty, forty, and sixty inches thick, and the drainage water is collected, measured, and analysed. The thickness of the bed was found to make no important difference, and the results on the five-feet bed are taken as typical. Of 31·04 inches of rain which fell on this soil, 17·09 inches evaporated and 13·95 inches percolated below five feet. In the drainage water the chlorine was found to be the same as in the rain water, but concentrated by the evaporation; while the nitrogen, as nitrates, was on the average 10·7 per million—the process of nitrification being most active during summer, while the principal discharge of nitrates was during autumn. The influence of vegetation is next studied. The conditions at Rothamsted are remarkably suitable for experiment. One celebrated field has grown wheat continuously since 1843, and one portion of it has never been manured. The drainage water from each is carefully collected, measured, and analysed. Vegetation, especially during its active stage, increases enormously the surface evaporation by transpiration of water through the plant, and in our climate during summer drainage is entirely suspended by the action of a vigorous crop. Interesting details are given as to the quantity and composition of the drainage water at various seasons of the year, especially with reference to the process of nitrification and the absorption of nitrogen by growing crops. As to evaporation, the results seem to show that, in round numbers, about one-half the rainfall of the year percolates through bare soil, and about one-third through unmanured soil cropped with wheat. This, of course, is only true under the conditions prevailing at Rothamsted. Armed with these valuable factors, Mr. Warrington has, with laborious skill, investigated the well waters of the neighbouring village of Harpenden—some of which are uncontaminated, while others are certainly contaminated. We must refer to the original paper for the very interesting observations which the author has made upon these works and their apparently eccentric contamination. He does not profess to explain all the anomalies, but, knowing and using as a basis the composition of the uncontaminated waters of the district, he has been able to throw light upon some of them. The effect of season, variation of rainfall, and local circumstances upon the composition of the well waters is amply illustrated, and the large quantities of calcium, magnesium, and sulphuric acid in the polluted waters is both interesting and important. From the whole study we gather the general inference, by no means new to the experienced chemist, that it is very unsafe to give a definite opinion on the quality of a water without a greater knowledge of its source than can be gained by a mere analysis. The analysis is essential, but it can only be interpreted by what in medical practice is known as the family history of the case.

PROF. GAYET ON OPHTHALMIA NEONATORUM.

DR. GAYET, Professor of Ophthalmic Surgery in Lyons, urges his pupils, in a clinical lecture on Ophthalmia Neonatorum, published in *La Province Médicale*, to search diligently for the gonococcus of blenorrhagia in all cases of ophthalmia occurring in very young infants. It does not, he says, require any extraordinary skill, and can be accomplished in as short a time as the ordinary examination of urine for albumen. A particle of the pus is placed on a glass slide and spread out by means of a second slide; the two are then separated, furnishing two preparations. They are stained by dropping a mixture of an alcoholic solution of methyl blue with an equal volume of water on them, allowing it to remain for two minutes. They are then washed with plenty of water. On microscopic examination each of the leucocytes will be seen to have two, three, or four nuclei, this being a special character of the disease, the increase in the number of nuclei heralding the approach of the gonococci, which will be observed as intensely blue spherical bodies in the interior of some of the leucocytes. If only one leucocyte so invaded is discovered, the diagnosis of blenorrhagic inflammation is rendered certain. With regard to treatment, the child must be watched "like milk on the fire," the visits being more than one per diem. Three indications present themselves: 1. To clear away the agent of infection. 2. To prevent its development. 3. To destroy it where it is. To fulfil the first, frequent and careful washing out is requisite. The eyelids should be everted, the mucous membrane stretched, and all the folds of the conjunctival sac thoroughly syringed out with a ball syringe; the eyelids should then be replaced, well rubbed on the outside, again everted, and the syringing repeated. In this way all the pus will be removed, but it is a somewhat difficult and tedious operation. In order to destroy the microbes which have already penetrated into the substance of the conjunctival mucous membrane, they must be pursued and attacked by the solid mitigated nitrate of silver, a solution of common salt being afterwards employed to neutralise any superabundance of caustic. The

mother should be directed to wash the eyes with a solution of corrosive sublimate (1 to 6000), and to keep small compresses wet with iced water on them. When the disease appears to be cured it is necessary to be on the look-out for a return; the microscope should therefore be in constant requisition in order to detect microbes, even after all apparent discharge has ceased. The most favoured prophylatic measure by Dr. Gayet is the employment of a vaginal douche with a 1 to 6000 corrosive sublimate solution at the commencement of all labours, especially when the woman suffers from leucorrhœa, in which case the child should not be allowed to remain too long in the passage.

THE NATIONAL MEDICAL CONGRESS OF ITALY.

OUR Rome correspondent writes:—"The Italians are possibly 'over-doing it' in the matter of congresses, but considering how jealously public meeting used to be restricted even on purely scientific subjects, the error is a venial one and quite on the right side. On the 1st inst. the National Medical Congress opened its sittings here in the great hall of the Senatorial Palace in the Capitol. Three hundred medical men from all parts of the peninsula were present, and on the presidential platform Signor Crispi, Minister of the Interior, represented the Government, the Duke Torlonia the Municipality, and a number of well-known physicians and surgeons the various medico-chirurgical associations of the city and provinces. The feature of interest was the eloquent speech of Crispi, who claimed a more than official—a personal—interest in the Sanitary Code of the late Dr. Bertani, brought before Parliament by the Prime Minister, Depretis. Bertani, the surgeon-in-chief of Garibaldi's patriotic campaigns, whose premature decease some thirteen months ago was commented on in THE LANCET, abandoned a brilliant academic and civic career to minister to the wounded red-shirts, and after their common goal was won devoted himself heart and soul to a department of medicine comparatively unfamiliar to him—public health—that he might render physically and morally sound and strong the national life he had helped to unify. Crispi's *éloge* of his friend was in his happiest vein, and seemed to infuse a genial spirit into the more formal speeches that came after. The programme of the Congress, an extensive one, in harmony with the sentence of Cicero, inscribed in imposing characters over the entrance-portal, "Hominum Vitæ et Saluti Consulendum," will doubtless give occasion to discussions of interest, not only for Italian medicine, but for that of other States."

EARLY DIAGNOSIS OF PHTHISIS.

As an original contribution to the *Revue Internationale des Sciences Médicales*, No. 5, Dr. E. Martel writes on the early diagnosis of pulmonary phthisis by an examination of the larynx. We cordially concur in the statement that to diagnose pulmonary tuberculosis as soon as possible is of the highest importance in the treatment of this affection, but far more evidence than has yet been adduced will be required to sustain M. Martel's principal proposition, to the effect that a "paralysis or a paresis of a vocal cord, with or without derangement of phonation, indicates in nearly all cases an incipient pulmonary phthisis." In other words, the discovery of an imperfection in the action of one vocal cord is equivalent to proving that the patient so affected will eventually develop unmistakable signs of phthisis, and this, too, in the lung of the same side as the impaired vocal cord. The impairment of the action of the vocal cord may precede the development of physical or other certain signs of phthisis, even by as long a period as four years. M. Martel's own words may be quoted, as they are so very remarkable and emphatic: "I have always examined the larynx even when there were no signs pointing to mischief therein, and I have been surprised at the number of 'lame' vocal cords which it has been my lot to examine; but we ought not to say, as soon as the discovery of a weakened vocal cord is made, that the apex of the left lung will become tubercular in a nearer or more remote future; there are exceptions, and aneurysm of the aorta, tracheo-bronchial adenopathy, and tumours of the neck may lead to functional troubles of the vocal organ." Nevertheless, in the next paragraph, M. Martel avers that in all cases of examination of the thorax or neck we shall find the cause of the vocal paresis; whilst in incipient phthisis the lung will appear to be healthy to physical examination of all kinds, and yet the lameness of the vocal cord alone will suffice for us to assert that something abnormal is taking place on the same side of the respiratory apparatus (lung).

MEANS OF ISOLATION AT SALFORD.

IN view of the contemplated purchase by a railway company of the existing infectious hospital for Salford, Dr. Tatham has submitted to his sanitary authority an able and exhaustive report on the principles which should govern them in the provision of a new hospital. Care has been taken to study the whole subject, and Dr. Tatham has interviewed the departments of the Local Government Board in order to elicit from them any expression of opinion formed since the last official publications were made on the subject. As a result of these steps, Dr. Tatham recommends that 200 beds—at the rate of one bed per 1000 inhabitants—should be provided as the permanent accommodation for the borough, and he enters into details as to the plan on which these should be arranged in different pavilions. The subject of the isolation of small-pox patients in urban communities is for the moment not dealt with, because the Monsall Hospital, affiliated to the Manchester Royal Infirmary, is available for the reception of cases of that disease. But this, it is admitted, is not likely to be a lasting arrangement; and when it comes to an end this very difficult problem will have to be faced in Salford. Dr. Tatham's report is so complete that its perusal would well repay those authorities and officers who have the provision of infectious hospital accommodation in contemplation.

ACUTE INFECTIOUS MYOSITIS.

THE subject of myositis which Mr. Treves brought under the notice of the Clinical Society last year has been further illustrated in a paper read by Dr. Jackson at a recent meeting of the Massachusetts Medical Society.[1] The case was that of a woman aged thirty-six, who had been seen by Dr. Jackson when in Strasburg. The illness began with malaise, sore throat, and a red papular eruption on the face, which disappeared in a week's time. Then occurred swelling, accompanied by pain, in the shoulders, legs, and sacral region. There was moderate fever, except at the close, when the temperature was high and pneumonia occurred. There was slight œdema of the face and extremities, the muscles of the limbs being fixed and rigid, extension causing pain. There was paresis of the soft palate, diminished electrical reaction, and absence of reflexes. The patient died a week after admission. Professor Kussmaul, who had charge of the case, diagnosed a diffused myositis, and said the case reminded him clinically of one in which thousands of miliary aneurysms were found all over the body. Trichinosis was at first thought of, but was eliminated by the history and the absence of gastro-intestinal prodromata. The post-mortem examination was made by Professor von Recklinghausen, and it was found that the muscles throughout the body, especially in the extremities, the trunk, and the face, were pale and moist, many had small hæmorrhages

[1] Boston Medical and Surgical Journal, 1887, No. 21.

in their sheaths, whilst their fibres were waxy and granular, and the interstitial tissue was infiltrated with round cells. In the discussion on the paper, Dr. Fitz remarked on the liability of the muscles to participate in infective processes, and suggested that in the case related by Dr. Jackson diphtheria may have been the primary source of the infective inflammation.

AMBULANCE ARRANGEMENTS FOR THE JUBILEE PROCESSION.

WE are glad to be able to state that Colonel Sir Charles Warren, Commissioner of Police of the Metropolis, in view of the probability of accidents which must necessarily occur on an occasion when large masses of people are gathered together, and of the possibility of cases such as sunstroke, syncope, &c., due to the present sultry weather, has taken the precaution of arranging with the Chief Surgeon of the Metropolitan Police for ambulances to be stationed at various points along the route over which the procession will pass. The actual stations of such ambulances will be notified in the police orders. We further understand that in addition to those possessed by the police a certain number of ambulance vehicles will be supplied by the Order of St. John of Jerusalem, and that if the permission of the General Commanding the Home District be obtained the services of the various companies of the Volunteer Medical Staff Corps will be available at their respective hospitals or at any point along the route where their presence may be deemed desirable. It may be interesting to add that in the ranks of the police are a large number of men who have previously served in the Army Hospital Corps, and who have been therefore selected for special duty on this occasion.

THE LOCAL DISTRIBUTION OF PHTHISICAL LESIONS.

IN a memoir upon the pathology of pulmonary diseases (*Zeitschrift f. Klin. Med*, abstracted by Sahli in *Fortschritte der Medicin*, No. 11, 1887), Dr. A. Hanau suggests that the reason for the preference of the apex of the lung for the initial lesion of phthisis is to be found in the comparatively weaker expiratory power of this part of the organ. In support of this he cites the frequency with which anthracotic and chalicotic processes are to be met with at the apex or a short distance below, corresponding to the sites of tubercular foci. Being unsupported, the apex of the lung can be fully expanded by inspiration, but it is less under the influence of expiratory forces than the lower parts of the lung. As a consequence, in forced breathing the air is very likely to stagnate in the apex; and, as Mendelsohn showed with respect to emphysema, there may even be a reflux of air from the normally acting lower parts of the lung into the upper. The comparative immunity from tubercular phthisis enjoyed by the subjects of spinal curvature, by those whose lungs have become cirrhotic, as coal miners, or the emphysematous, may in each case be attributed to defective power of inspiration possessed by the apex or the whole lung in such conditions. The selection of the middle lobe and lower part of the upper lobe for the occurrence of secondary foci due to the aspiration of the contents of cavities which have escaped into the bronchi is also explained. Usually the areas of broncho-pneumonia arising from aspiration of noxious matter are to be found in the lower and posterior parts of the lung. This is due to the dorsal decubitus of most of the patients in whom this complication supervenes. But it is otherwise in phthisis when the subject is not confined to bed, for the regions next to be involved to the apex, and infected secondarily from it by means of aspiration, are the middle lobe and contiguous part of the upper lobe. These regions are the most liable to be fully distended in coughing, and the products of the apical vomicæ will be more readily pressed in their direction by the backward current of air. Hanau also ascribes the frequently rapid extension of phthisis in women after childbirth to the aspiration of the contents of cavities into previously healthy parts of the lungs following on the extraordinary respiratory efforts made during parturition. Aspiration as a factor in the dissemination of tubercular lesions is not perhaps as fully recognised as it should be, but it certainly serves to explain the matter in a plausible way, and is in absolute harmony with the doctrine of the local infectivity of tubercular products, which is so admirably illustrated in the distribution of the lesions of uro-genital tuberculosis.

THE MATHEMATICAL TRIPOS, 1887.

THE list of Mathematical Honours for the current year exhibits some rather interesting features. In the first place, it is remarkable that four names are bracketed together for the post of "senior" in the Tripos, Trinity and St. John's equally dividing the honour. Of the thirty wranglers, Trinity claims nine; St. John's and Christ's, four; King's College, three; Emanuel, Pembroke, and Sidney, two each; whilst Peterhouse, Jesus, Corpus, and Queen's each supply a single wrangler. Caius College, which in former days furnished so many senior wranglers, and nearly always had a candidate high up in the list, this year supplies no wrangler. It would be interesting to inquire whether this decline in the mathematical honour list is exceptional and due to accidental causes or to failure in drawing mathematic talent to the College. Caius College has been the foremost in providing handsomely for the requirements of natural science teaching, and its success in that direction has been very marked; it is just possible, therefore, that some of its best scholars have been attracted in that direction, and have sought for honours in the Natural Science instead of the Mathematical Tripos. If such should prove to be the case, we may regard the present decline of this, as it might almost be called, Medical College as regards its position in the Mathematical Tripos with equanimity, and indeed with satisfaction, as showing that the medical profession is attracting some of the best intellect at the College to the scientific training necessary for its successful cultivation. Among the successful Colleges this year in the Tripos, Christ's certainly deserves the palm; though considerably smaller than St. John's College, it furnishes an equal number of wranglers, three of whom are in the first thirteen. This, again, is another instance of a change of tradition, since in former years Christ's was regarded more as a classical than a mathematical college.

FREE LIBRARIES AND CONTAGION.

No public institution is so fortunate as not to be liable to misuse. It is not, therefore, to be wondered at that the free library, notwithstanding the benefits it undoubtedly confers, has been found to have its disadvantages. A complaint has been laid against it that it may, and sometimes does, become the means of carrying infection. A correspondent, writing a few days ago, quotes what seems to have been a case directly in point. A child obtained from the library a book which had just come from a house in which there was scarlet fever, and two days later was taken ill with this disease. The period of incubation in scarlatina is somewhat variable, but it is not incompatible with the view that the book was here the medium of infection. Whether the disease could not have been traced to any other possible source is uncertain, but, at all events, this case indicates a danger which appears to be inseparable from the free library system. The only possible safeguards are to be

found—firstly, in a compulsory notification of infectious disease to the librarian, and secondly, the subjection of every returned book about which there is any doubt on the score of contagion to a process of disinfective fumigation. In this connexion reference may be made to an incident recorded in a Russian periodical. Typhus fever has recently been very prevalent in Sebastopol, and it is stated that its ravages were to some extent controlled by the judicious action of the librarian of the town library, who appealed earnestly to the subscribers to cease temporarily from changing books in case of the fever appearing in their respective families. In this way the frequenters of the library and the readers of the books lent out, as well as the staff of servants and librarians, have been saved from infection.

A NEW AND IMPERVIOUS DRESSING.

PHOTOXYLIN, a substance in use amongst photographers, was recommended some time ago by Dr. Krysinski as a suitable material for mounting microscopic specimens, and more recently still it has been utilised by Prof. Wahl of St. Petersburg as a substitute for collodion in surgical practice. A 5 per cent. solution in equal parts of alcohol and ether he finds preferable to collodion, as it adheres more firmly to the skin, not being so easily rubbed off in washing. It is absolutely impervious to liquids, and exerts a perfectly even compression on the tissues. In out-patient practice Prof. Wahl finds that, after small operations such as the extirpation of glands, the application of photoxylin solution enables him to dispense entirely with voluminous antiseptic dressings; also in plastic operations on the face, and in operations in the neighbourhood of the male congenital organs, such as those for the radical cure of hernia and castration, where it is very difficult to prevent the urine soaking through antiseptic dressings. Prof. Wahl, after carefully arresting all hæmorrhage, closes the wound with sutures and gelatine plaster, and then covers the whole with a thin layer of wool soaked in a solution of photoxylin. This, it is stated, will remain eight or ten days, entirely resisting all the effects of moisture. Even in laparotomy, extensive dressings may, he believes, be dispensed with by painting a solution of photoxylin over the wound with a brush, or by the application of a layer of cotton wool soaked in the same liquid. Photoxylin appears to be unknown in this country. It was introduced by Messrs. Mann of St. Petersburg.

THE NEWINGTON MEDICAL OFFICER OF HEALTH.

WE regret the action which has been taken by the Newington vestry in connexion with the office of medical officer of health, which has become vacant by the death of Dr. Iliff. The bye-laws of the vestry are specially contrived to prevent vestrymen from taking paid offices, and to secure the election of the best available persons. Thus, "no vestryman shall be eligible for nomination or election to any paid office or place under the vestry, and no person shall be nominated or elected to any such paid office within six months after he shall have held the office of vestryman." And further, the mode of election by selection from amongst candidates is provided for. In the face of this the resignation of Mr. G. Millson, L.R.C.P., a vestryman, was accepted at the first vestry meeting after Dr. Iliff's death; Mr. Millson's offer "to discharge the duties of medical officer of health gratuitously until such time as the vestry see fit to elect a permanent officer" was accepted; and it was decided "that the appointment be reviewed"—not made—"at the expiration of six months." In our judgment nothing could have been contrived which would more completely frustrate the intention of the bye-laws than the steps which have been taken.

REG. v. THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

WE publish in another column an important judgment delivered in the Queen's Bench Division in regard to the power of the Medical Council to remove the name of dentists from the Dentists' Register in cases in which the qualifications on the strength of which registration had been effected had been withdrawn by the medical authorities granting the said qualifications. The questions raised by this decision are so important, and the report reaches us so late, that we defer comment till next week. It will be seen that judgment is given in favour of Mr. Partridge, who held a diploma in dentistry from the Royal College of Surgeons of Ireland, which was withdrawn on account, as alleged, of his advertising to attract business. The Council, without an independent examination of the facts, merely on the ground of its duty to keep a correct Register, erased his name. The mandamus, on application on behalf of the Medical Council, will not be drawn up for a week.

DRINKING TROUGHS AND GLANDERS.

AT a recent meeting of the Commission of Sewers, the Streets Committee advised the non-erection of a drinking trough in Farringdon-street on the ground that it was likely to serve as a means of disseminating glanders. This is a serious indictment, and it is said to be supported by the observations of several veterinary surgeons. It would be interesting to learn on what precise statistics it is founded, and the mere assertion made on such authority justifies an inquiry into the subject. In consideration of the undoubted benefit which these troughs confer upon travelling cattle, the sufferings of which in hot weather would often without them be very great, it is to be hoped that the Commissioners will not accept the recommendation of their committee unless it is fully fortified by proof, but it would certainly be well for them to consider the alternative proposal made by one of their number, that the drinking trough should be so constructed that the water within it may be kept running, and thus be constantly renewed.

DEATH OF DR. OXLEY OF LIVERPOOL.

DR. MARTIN G. B. OXLEY, senior physician to the Liverpool Infirmary for Children, died at Llandudno shortly after midnight of the 13th inst. The deceased was a student of King's College, became M.R.C.S. Eng. in 1862, and later on M.K.Q.C.P.I. and M.D. St. And. Some years ago he suffered from mitral disease of the heart, for which he was attended by Dr. Glynn of Liverpool. He rallied from this, and after some months' rest resumed practice. But he had several relapses and recently went to Llandudno, where he hoped to benefit by the sea air and change. He was attended by Dr. Dalton, and it was hoped that he would recover. But a change for the worse occurred, and at 12.30 A.M. on the 14th inst. he expired. He leaves a widow and two sons to mourn their loss, as well as a large circle of professional and lay friends, among whom he was extremely popular.

FEVER AT STAPLEFORD.

STAPLEFORD, in Nottinghamshire, is under the jurisdiction and mismanagement of the Shardlow rural sanitary authority, and the Local Government Board having apparently failed to induce the authority to do away with the conditions periodically leading to fever prevalences in the place, have at last reminded them of the frequency with which the water supply has been condemned as dangerous, of the faulty system of midden-privies and the lack of drainage, and have finally thrown upon them the responsibility for

such further disease and mischief as may result. In such cases the Local Government Board have no power of enforcing the adoption of proper sanitary measures unless definite complaint is made to them of default under Section 299 of the Public Health Act, 1875. The matter must, therefore, now rest with those who elect the authority and reside in the district.

CONVERSAZIONE AT THE ROYAL COLLEGE OF SURGEONS.

A VERY successful conversazione was given by the President, Mr. W. S. Savory, F.R.C.S., at the Royal College of Surgeons on Wednesday evening last, nearly twelve hundred ladies and gentlemen being present, including a large number of nurses from St. Bartholomew's Hospital, whose dresses lent picturesque variety to a brilliant scene.

DR. DE GROOTE ON HOT CLIMATES.

IN a work on "The European in Hot Climates," recently published by a Belgian naval surgeon, Dr. de Groote, Central Africa in general and the Congo in particular are dealt with. With regard to the Congo, the author considers the climate more healthy than those of Brazil and the English and Dutch Indies. A good deal of practical valuable advice is given to travellers, emigrants, and colonists, for whom the work is mainly intended. The directions given for the immediate treatment of medical and surgical affections when out of the reach of professional aid will also prove valuable to this class of persons, and in the opinion of Dr. Thiriar, of Brussels, who has reviewed it in *La Clinique*, the amount of information given under this head is just what is required.

EUSTACHIAN OBSTRUCTION IN DIABETES.

WRITING in the *Revue Mensuelle de Laryngologie, &c.*, No. 6, on the troubles of hearing sometimes complained of by diabetics, M. Miot comes to the conclusion that the swelling, with œdema of the Eustachian tube, is a complication of diabetes which does not yield to ordinary treatment, but is amenable to the continuous current, which diminishes the congestion of the mucosa and allows of the introduction of bougies, as well as the employment of galvano-caustic agencies. The last-mentioned means appears to be the most efficacious and rapid method of restoring the functions of the canal.

HONORARY DEGREES OF DUBLIN.

IT is probable that several members of the British Medical Association will receive the degree of M.D., *honoris causâ*, at the hands of the University of Dublin on June 30th—Sir James Paget, Sir Spencer Wells, Mr. Simon, Professor Gairdner, and Dr. Edward Waters. It is intended to confer the degree of LL.D. on Prince Albert Victor on the same day.

THE PASTEUR COMMITTEE.

WE learn that the report of the Government Committee appointed to inquire into the efficacy of the Pasteur method is revised, and will be signed in a few days when sent round to the members of the committee. It will probably be in the hands of Mr. Ritchie by the end of the week, when he will, no doubt, lay it on the table of the House.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign medical and scientific men are announced:—M. le Dr. Rochas, General Secretary of the Rhone Medical Association.—Dr. L. K. Wagner of Kharkoff.

THE MEDICAL DEFENCE UNION.

THE Transactions of the Medical Defence Union are before us in pamphlet form, and give an account of the position of the Union in respect of membership and the action of the executive. The members amount to about 554. As regards action, some disappointment may be felt that it approaches so nearly to inaction. But this feeling will be modified on a careful perusal of the statement. For one thing, it seems quite candid and complete, telling the reader the various cases in which the action of the Union has been invoked, and the reply of the Union, with its reasons, which are generally sound and sensible. We do not think the worse of the Union for not proceeding heroically and sensationally, and it will take a stronger position if it acts slowly and wisely.

DR. GRAILY HEWITT.

AFTER twenty-two years of service, and in consequence of the pressure of private and other engagements, Dr. Graily Hewitt has resigned the chair of Obstetrics and Gynæcology in University College and his post of physician to the hospital. In accepting this resignation, the Council of the College passed a resolution expressing their high appreciation of the very eminent services which Dr. Hewitt has rendered to the College and hospital during the long period he has held the chair.

CONSULTATION FEES IN RURAL FRANCE.

THE bureau of the Haute Garonne Medical Association has been informed that sometimes a general practitioner calling in a consultant expects to be given a portion of his fee—in fact to receive a commission on the transaction, in the way in which commercial men remunerate others who introduce business to them. The bureau, being asked to express an opinion on this matter, had no hesitation in characterising any transaction of the kind amongst medical men as highly undignified. It added that the general practitioner is entitled to a consultation fee as much as the consultant, and that it would be a desirable practice to intimate this to the patient.

SIR FREDERICK ABEL.

WE regret to learn that Sir Frederick Abel, chemist to the War Department, has had an attack of double pneumonia. He is at present at Woolwich, and is considered by his medical attendant, the medical officer of the Arsenal, to be convalescent. The eminent chemist appears to have "caught a chill" while attending a public ceremonial.

GRANTS FOR SCIENTIFIC RESEARCH.

WE may remind our readers that the Scientific Grants Committee of the British Medical Association will shortly meet to consider applications for grants in aid of medical, surgical, and collateral research, to which purpose £300 is annually devoted. Applications should be forwarded to the office of the Association, 429, Strand, where particulars may be obtained of the conditions under which the grants are allotted.

HENLEY REGATTA.

WE have ascertained that, after all, there is as yet no new regulation in force to prevent the befouling of the London drinking-water supply by the house-boats that will gather together in such large numbers at Henley during the regatta week. The new bye-laws framed to prevent the contamination of the Thames still await the Royal assent. We shall deal more fully with this important question in our next issue.

SCARLATINAL KIDNEYS.

THE interesting contribution to the Pathological Anatomy and Histology of Scarlatina, appearing in the pages of the *Birmingham Medical Review*, from the pen of Dr. George Crook, whilst confirming the general truth of Klein's histological observations on the changes in the arteries and arterioles, states that the hyaline change is not met with so frequently or so well marked as Klein described. "Interstitial changes are undoubtedly rare in the first week, but in two cases their presence in the form of cellular infiltrations around the glomeruli, and in patches along the vessels in the labyrinth, could not be overlooked."

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Professor B. Fraenkel has just commenced work in his newly established University Policlinic for Nose and Throat Diseases.—Dr. Thorn, assistant medical officer of Professor Olshausen's University Gynæcological Clinic, has been appointed to succeed Dr. Hofmeier, who has gone to Giessen.

Buda-Pesth.—Professor Jos. Wagner, Director of the Second Medical Clinic, having held the professorship for forty years, is about to retire.

Dorpat.—Dr. Weil, Professor of Special Pathology and Therapeutics, who has been away during the winter endeavouring to recruit his health in the south, not having derived as much benefit as was anticipated from the climatic change, is now unfortunately obliged to relinquish all hope of returning to his work, and is therefore resigning his chair.

Kieff.—The medical library of the late Professor E. E. Miram has been presented to the University.

Prague (Bohemian University).—Dr. Karl Pawlik of Vienna has been appointed Professor of Midwifery and Gynæcology.

St. Petersburg.—Mdme. Auer, daughter of the late Dr. E. V. Pelikan, has given her father's valuable library to the Military Medical Academy.—Drs. Hertsenstein, Gendenreich, Cydakoff, and Sirotinin have been recognised as *privat-docenten*.

IT is officially announced that the Dean of Westminster has received the Queen's permission, and also the sanction of Her Majesty's First Commissioner of Works and of the Lord Chamberlain, to repeat the Jubilee service in the Abbey on Wednesday, 22nd inst., at 3 P.M. The service, which will include musical additions, will be held for the benefit of London hospitals. One third of the proceeds will be given to the Hospital Sunday Fund, which this year will lose the annual collection in the Abbey, one third to Westminster Hospital, and the remaining third will be divided between the Hospital Saturday Fund and the Western Dispensary. Tickets, at prices ranging from one pound to half-a-crown, will be issued by the Secretary of Westminster Hospital, to whom alone application should be made.

THE recent inquiry into the charges made against the Health Committee of the Manchester Corporation by the elective auditors has resulted in the finding that no charges of fraud have been sustained against any member of the committee or the committee's responsible officers, and that the shortcomings were no more than might be discovered in any other concern, public or private, of equal size.

AT a meeting of Convocation of the University of Oxford on the 9th inst. a grant of £100 a year for three years for the purpose of providing instruction in materia medica and pharmacy was carried by 38 votes to 19.

WE regret to announce the death of Mr. J. Beswick Perrin, M.R.C.S.E., of Leigh, Lancashire. Mr. Perrin was for some years Demonstrator of Anatomy in King's College, London, and afterwards at Owens College, Manchester, and will be remembered by many old friends and pupils as a most able dissector, an ardent anatomist, and an excellent teacher. After leaving Manchester, he settled in practice at Leigh, and soon became extremely popular and much respected in the district. In his earlier days he wrote many interesting and valuable anatomical papers in the *Medical Times and Gazette*, the *Journal of Anatomy and Physiology*, and the Transactions of the Zoological Society.

THE election of an Assistant Physician to the Royal Alexandra Hospital for Sick Children, Brighton, took place last week, there being six candidates, all of whom were highly qualified. Mr. W. C. Chaffey, M.B. Lond., late registrar to the Great Ormond-street Hospital, London, was elected by the Committee of Election, who had no personal knowledge of him; he was chosen purely on the ground of merit. The elections at this hospital being carried out by an Election Committee, canvassing either directly or through an agent disqualifies candidates.

THE borough of Oldham is about to receive a charter as a quarter sessions district, which will entail the appointment of a borough coroner. The only medical candidate is Dr. George Thomson, his opponents so far being all members of the legal profession. Our views of the question of medical coroners are well known, and we wish Dr. Thomson every success in his candidature.

ANOTHER outbreak of diphtheria has occurred on the Danish corvette *Dagmar*, which recently left Sheerness to resume her training cruise in the North Sea. The patients have been admitted by the naval authorities to the infectious wards of Melville Hospital, where three of the *Dagmar's* crew have been confined since the 29th ult.

AT the last meeting of the Royal Medical and Chirurgical Society, Professors W. H. Flower, Michael Foster, and Sir William Turner were elected Honorary Fellows, and Professors John S. Billings, Frederick Esmarch, and Richard von Volkmann, Foreign Honorary Fellows of the Society; Dr. S. J. Gee was elected Honorary Librarian.

THE Queen has been pleased to appoint James Patrick Tulloch, M.B., colonial surgeon for the Island of Tobago, to be an official member of the Legislative Council of that island.

A SEVERE epidemic of measles is raging at Winsford, Cheshire. The whole of the schools in the town are closed.

TESTIMONIAL TO MR. GODART.—It is proposed to present a testimonial to Mr. Godart upon the occasion of his departure for Sydney after thirty-seven years' service as pathological and anatomical draughtsman in the Medical School of St. Bartholomew's Hospital. A meeting will be held in the anatomical theatre on Saturday, July 2nd, at 1 P.M., to determine the form which the testimonial shall take. Subscriptions may be sent before that date to Mr. D'Arcy Power, Curator of the Museum, 26, Bloomsbury-square, W.C.

A PHYSICIAN ATTACKED BY ROBBERS IN HAVANA.—Dr. Vincente de la Guardia, a much-esteemed physician in Havana, was recently attacked and robbed in or near the city. He defended himself with vigour, but was unfortunately wounded

Pharmacology and Therapeutics.

TERTIARY ALCOHOLS.

DR. B. M. SHAPIROFF has made a number of observations on the physiological action of tertiary alcohols, and especially on that of dimethyl-ethyl-carbinol, a tertiary amyl alcohol obtained by the action of chloride of propionyl on zinc methyl. In its pure form this substance is a clear oily liquid with a strong odour. The melting point is 12° C.; the boiling point is 102·5° C.; and the specific gravity at 0° C., 0·828. On oxidation acetic and propionic acids are formed. When 0·001 to 0·005 gramme is injected under the skin of a frog, the first effect is to cause stupor—i.e., depression of the cerebrum; after which paralysis of the spinal cord is induced, evidenced by the arrest of the lymphatic hearts, the centres for which are, according to Veliki, located in the cord. No direct effect is produced on the hæmic circulation. In warm-blooded animals dimethyl-ethyl-carbinol diminishes the blood pressure, paralysing the vaso-motor centres, but does not exert any direct action on the heart. On the temperature it produces a decided effect, lowering it in a marked degree. The action of trimethyl-carbinol is very similar to that of the compound containing a molecule of ethyl, but less marked and slower. In general, according to the author, the tertiary alcohols, though they may have the same composition as primary alcohols, exert a very different physiological action, the latter class of bodies being general stimulants, while the former act as depressants.

Another Russian observer, Dr. Shumoboï Simanovski has published some recent observations (*Ejenedélnaia Klinicheskaia Gazeta*, No. 11) on trimethyl-carbinol, which, he says, was obtained first by Butleroff by the action of zinc methyl on oxychloride of carbon, and also by its action on chloride of acetyl. It is sometimes described as tertiary pseudo butyl alcohol. As long ago as 1867 Danielevski reported at the first Congress of Russian Naturalists that this substance had the property of allaying irritability of the psychic centres without causing any preliminary excitement. Dr. Simanovski, from observations recently made on both warm- and cold-blooded animals as well as on patients, is now able to confirm the views of Danielevski, and also those of Thierfelder and Mering, who found that tertiary alcohols exerted a soporific effect on rabbits. The dose for an adult of trimethyl-carbinol is from ten to twenty drops. Given to two patients in Professor Botkin's wards suffering respectively from perinephritis and pleurisy, with a high degree of habitual and long-standing insomnia, it produced in both instances a really good night's sleep. There appeared to be no objection to repeating the draught on several successive nights.

ANTIPYRIN AND ACETANILIDE IN PHTHISIS.

IN comparing the effects of antipyrin and antifebrine or acetanilide in phthisis, Dr. Jablovski finds that acetanilide exerts a much more decided effect on the pyrexia. He remarks that by taking acetanilide such patients exhibit far less variation between the morning and evening body weight than under ordinary circumstances. The same is true with regard to antipyrin, but the effect is less marked. The loss by the skin and lungs is increased by antipyrin and very greatly diminished by acetanilide. Dr. Jablovski publishes a series of tabular results obtained during a long and painstaking investigation conducted upon patients in the Helsingfors Military Hospital.

HUAMANRIPA.

The plant known by the name of huamanripa amongst the natives of Peru is made use of by them in cases of bronchitis, catarrh, and slight hæmorrhages. It has been recently examined by Dr. Zapater, who employed an infusion made of 25 parts of the leaves to 1000 of water. In small doses it quickens the cardiac pulsations and augments the secretions, especially the saliva. In larger doses it produces vomiting and sweating, and diminishes the cardiac beats, the respiration, and the temperature. In cases of pleurisy and pneumonia it appears to exercise almost a specific action. It is, besides, an excellent sudorific.

A DEMONSTRATION of amalgamated temperance societies took place on the 12th inst. in aid of the North London Nursing Association.

THE HOSPITAL SUNDAY FUND.

ON the 11th inst. the sixth of the fourteen public meetings to be held in support of the Hospital Sunday Fund was held in the Shoreditch Town Hall. The chair was taken by the Bishop of Bedford, supported by the Marquis of Lorne, Mr. J. Bigwood, M.P., Sir Sydney Waterlow, Sir Edmund Hay Currie, the Rev. Septimus Buss (vicar of Shoreditch), the Rev. Prebendary Billing (rector of Spitalfields), the Rev. W. Cuff, and others. The following is a list of the institutions comprised in the Shoreditch district which benefit from the Hospital Sunday Fund:—City of London Hospital for Diseases of the Chest, German Hospital, North-Eastern Hospital for Children, Poplar Hospital, East London Hospital, Metropolitan Free Hospital, London Dispensaries, and City of London Lying-in Hospital. The expenditure and liabilities of these institutions in 1886 exceeded the income by £30,000. The Chairman, in opening the proceedings, said that if there was one charity which more than another was free from the danger of doing more harm than good it was the Hospital Sunday Fund. At present, however, neither the supply of hospitals nor the support of those existing was, in his opinion, sufficient. He should be very sorry if the hospitals had to become a department of the State or to be supported out of the rates, but if the necessary funds were not otherwise provided they might come to that. Centralisation of management was never very efficient, and the hospitals would suffer very greatly from it; besides, the public would be robbed of one of the most healthy and pure channels of benevolence that were open. The Marquis of Lorne moved the first resolution—"That this meeting pledges itself to use every endeavour to arouse the inhabitants of this district of London to the importance of maintaining the hospitals and medical charities in the utmost efficiency. In furtherance of this object it urges the clergy and the ministers of religion to point out the advantage of giving through the Hospital Sunday Fund, owing to the nominal cost of so collecting funds for the hospitals, and to make an earnest appeal to the people to so increase their contributions as to secure that the whole sum collected shall not be less than £100,000." He said that the grave condition of the hospitals' finances ought not to be allowed to continue. In the East-end, and the more densely populated districts of London, medical and surgical aid should be near at hand, and every well-considered attempt to provide more extensive accommodation in these crowded districts ought to be welcomed. The Rev. S. Buss seconded the resolution, which was unanimously carried. Sir Sidney Waterlow then moved the second resolution—"That this meeting regrets to learn that the expenditure and liabilities of the hospitals and medical charities of this district in the year 1886 exceeded the income by £100,000, and pledges itself to increased exertion, with a view of preventing any like deficiency during the current year." He said that the public of the metropolis did not fully comprehend the duty and responsibility which rested upon everyone of maintaining the hospitals in a state of efficiency to relieve the sick poor. As chairman of the Distribution Fund, he could assure the public that the money contributed to the fund went directly, with the smallest possible deductions, to the objects for which it was intended, the management, collection, and distribution of the fund only costing 3 per cent. The Rev. Prebendary Billing having seconded the resolution, it was carried with only one dissentient. The Rev. W. Cuff then proposed a vote of thanks to the Bishop of Bedford for presiding, and to the Marquis of Lorne for his attendance. Sir Edmund Hay Currie, in seconding the resolution, said he wished to disabuse people of the idea that the money being asked for was for the establishment of new hospitals, though these were needed badly enough. The existing hospitals were not doing anything like the work they might do simply because they had not enough funds, and the money asked for was to carry them on efficiently; £40,000 was collected on Hospital Sunday, and though this might sound a large sum, it was perfectly unworthy of such a great city as London, for it did not amount to £15 for every place of worship. The resolution was carried by acclamation, and the proceedings came to a close.

On the 13th inst. a meeting was held as St. Mary's, Newington, Parochial Hall, Kennington Park-road. The Newington district includes all London south of the Thames,

and contains nine hospitals and eleven dispensaries participating in the fund. During 1886 these institutions accommodated 7594 in-patients and relieved 92,025 out-patients, and in the same year their total income was £41,349, while their expenditure amounted to £44,190. The chair was taken by Sir Wm. Plowden, M.P., who was supported by the Rev. C. H. Spurgeon, the Rev. G. T. Palmer, the Hon. Conrad Dillon, Sir Sydney Waterlow, the Rev. J. Guinness Rogers, and Mr. H. C. Burdett. The Chairman, in opening the proceedings, said that from returns which he had received he found that in Birmingham, where the Hospital Sunday movement was initiated, seventy contributing congregations raised a sum of £5000 for their hospitals. In London and the suburbs there were no less than 2000 contributing congregations, and if they gave to the same extent as those in Birmingham they would raise a sum of £150,000, instead of the £40,000 which they did actually contribute. The deficiencies of the London hospitals were stated at £100,000, but this estimate did not take note of the fact that there were also 2000 beds available, but unoccupied for want of adequate means. If the hospitals were to work at their utmost efficiency a sum of 200,000 would be required. Sir Sydney Waterlow then moved a resolution pledging the meeting to use every endeavour to arouse public interest in the needs of the hospitals, and urging the clergy to make an appeal to their congregations so as to secure that the total sum collected should not be less than £100,000. The Hon. Conrad Dillon seconded the resolution, which was carried unanimously. The Rev. G. T. Palmer then moved a resolution expressing regret at the fact that the expenditure and liabilities of the hospitals in the Newington district exceeded their income by £2800 in the year 1886, and pledging the meeting to increased exertion to prevent any like deficiency during the current year. The Rev. C. H. Spurgeon, in seconding the resolution, said that the hospitals would have inevitably growing needs. But while their liabilities were increasing their incomes were decreasing. People must therefore rouse themselves to make up the deficiencies which had already appeared, and which would continue to appear in greater proportions in the future. From the constant growth of the population of the metropolis more hospitals would be required, and if the tending of the sick and needy could not be properly undertaken by voluntary institutions, the indispensable work would have to be done by Government. He hoped that outsiders would be awakened to the urgency of the case; for it was not only as Christians, but as men, that they contributed to the fund. In giving to the hospitals there need never be any fear of doing injury, for to relieve sickness and suffering must be good. The Rev. J. Guinness Rogers supported the resolution, declaring that the collections hitherto made on Hospital Sunday were not worthy of London's wealth, her humanity, or her Christianity. The resolution having been unanimously carried, the proceedings terminated with a vote of thanks to the Chairman.

On the 14th inst. a meeting was held at the Mansion House. The Lord Mayor, who presided, was supported by Sir S. H. Waterlow, Bart., Alderman Sir W. McArthur, K.C.M.G., M.P., the Bishop of London, the Rev. Dr. Allon, Sir Edmund Hay Currie, Canon Fleming, Dean Vaughan of the Temple, Rev. — Simpson, Mr. Wakley, Mr. H. N. Custance (secretary), Mr. Burdett, and others. The Lord Mayor mentioned the receipt of letters from the Bishop of Bedford, the Bishop of Ripon, Lord Strafford, and the Rev. Dr. Wace, and announced that he had received from Mr. Henry Irving a contribution of fifty guineas. In opening the proceedings, the Chairman said that the promoters of the Hospital Sunday Fund endeavoured to excite in the public, and particularly in the wealthy, feelings of gratitude and thankfulness for the health and prosperity they enjoyed, and as a result to make a special endeavour to support the institutions which were established chiefly for the benefit of those not so fortunate and not so well off as themselves. This year, and this time of the year, when so many of them were spending large sums of money to gratify their feelings of loyalty, curiosity, or enthusiasm, in connexion with Her Majesty's conspicuous jubilee, was particularly suited to be signalised by special liberality in this respect. The Bishop of London then moved a resolution identical with that proposed at the meeting on the 11th inst. by the Marquis of Lorne. It was not anything new, he said, to plead for hospitals in the city where such institutions had been liberally supported from the earliest times. There were no institutions which appealed more strongly to Christian hearts than those which were designed to carry on the work in which their Master had so often engaged, that of relieving and mitigating the sufferings of the sick and afflicted. It was a blessed thing indeed to be permitted to be able to carry on such a work, and it was in truth the very best mode of preaching the Gospel. The Rev. H. Allon, D.D. (Islington), seconded the resolution, and pointed out that the claims of the Fund had been already demonstrated far beyond the need of argument. Experience had proved the need and the value of hospitals and dispensaries, and their care must now be one of practical effort to apply principles that were universally admitted. Referring to the discussion as to the desirability of a Parliamentary grant, the speaker said that money was not the most important thing—sympathy was a necessity, and the need of it had often rendered their Poor-law boards the reverse of what they should be, and had earned for the Charity Organisation Society the unpopularity for which it was notorious. Mr. J. B. Martin, treasurer of Charing-cross Hospital, at this stage attempted to deliver himself of a long and rambling statement as to the refusal of four hospitals to assist the Fund, but was ruled out of order by the Chairman. The motion having been carried unanimously, Sir S. H. Waterlow moved the second resolution, which was similar to the one proposed by him on the 11th inst. Like the first one, it was carried without dissent, and a vote of thanks to the Lord Mayor having been passed, the meeting broke up.

On the 15th inst. a meeting was held in St. Andrew's Hall, Newman-street, W. The St. Marylebone and West Central District, on behalf of which the gathering was held, comprises Marylebone, St. John's Wood, Bloomsbury, Holborn, &c., and contains twenty hospitals and seven dispensaries benefiting from the Hospital Sunday Fund. In the year 1886 these institutions relieved 8980 in-patients and 158,955 out-patients; their income for the same year was £74,274 and their expenditure £84,451. The chair was taken by Major A. H. Ross, M.P., who was supported by Colonel Duncan, M.P., Mr. A. A. Baumann, M.P., and Mr. H. L. W. Lawson, M.P. The Chairman opened the proceedings with a brief speech, in the course of which he pointed out that, taking fourteen of the principal hospitals in London, it was found that their annual average receipts from subscriptions and the Hospital Saturday and Sunday Funds for the past three years amounted to £105,000, while their average expenditure in the same time was £220,000. Colonel Duncan, M.P., then moved a resolution pledging the meeting to use every endeavour to arouse public interest in the needs of the hospitals, and urging the clergy to point out the advantage of giving through the Hospital Sunday Fund, owing to the nominal cost of collection, and to make an earnest appeal to the congregations in order to secure that the whole sum collected should not be less than £100,000. Mr. A. Baumann, M.P., in seconding the resolution, said that nothing less than the £100,000 mentioned in the resolution would suffice if the hospitals were to be relieved from their present financial crisis. The question now was whether the London public preferred to support the hospitals by their voluntary contributions or to submit to having another 2*d.* or 3*d.* added to their rates. In his opinion, it would be a deep reproach to Londoners if they allowed their poorer fellow-citizens to be thrown upon the cold and unsympathetic relief provided by the State in the time of sickness and pain. This resolution having been carried unanimously, Mr. H. L. W. Lawson proposed another expressing regret at the disparity during 1886 between the incomes of the metropolitan medical charities and their expenditure, and pledging the meeting to increased exertion to prevent a like deficiency in the present year. Mr. Arthur Marshall seconded the resolution, which was carried without dissent; and a vote of thanks to the Chairman brought the proceedings to a close.

On the 16th inst. a meeting was held at the Kensington Town Hall. The Duke of Argyle presided, and was supported by, amongst others, Sir A. Borthwick, M.P., Rev. the Hon. E. Carr Glyn, Mr. Brudenell Carter, Rev. Mr. Graves, and Mr. Burdett. The Chairman, in opening the proceedings, expressed the pleasure he had in presiding over a meeting which had for its object the increase of the Hospital Sunday collection. He observed that in no other country and in no other age had there been such a vast aggregation of people as at present residing in London; throughout Christendom there was no other city nearly approaching the population of the metropolis. Provision for sickness

and disease, while absolutely necessary, was one of the most difficult problems of modern times. Such provision cannot be left to individuals, it must be met by organisation, voluntary, municipal, or State. That it had hitherto been imperfectly performed was proved by the fact that the hospitals of London and the country were living from hand to mouth, and that many of them had had to close some of their wards. The deficit last year in the funds of the medical charities comprised in the Kensington district amounted to about £18,000, and the question was, how was this deficit to be met? He deprecated State assistance, which would, if resorted to, assuredly put an end to voluntary contributions. In Glasgow organised appeals to the industrial classes had proved highly successful, and he advocated systematic and organised appeals to the working classes of London, believing that if this plan were adopted the deficit in the funds of the metropolitan hospitals would cease to exist. The first resolution, which was in exactly the same terms as the corresponding one at the previous meetings, was moved by Mr. Brudenell Carter, who dwelt on the universality of the claim of hospitals for support. He also opposed State aid, such institutions requiring in their management not red-tapeism but flexibility. Sir A. Borthwick, M.P., seconded the resolution, and announced his intention of endeavouring to organise such an appeal to the working classes as had been suggested by the Duke of Argyle. The motion having been carried unanimously, Mr. Burdett moved the second resolution, which was also identical with the one passed at previous gatherings. He earnestly advised those present to visit the hospitals to see the working of them, and to become personally acquainted with the good they do. The Rev. Carr Glyn seconded the resolution, and advocated not only appeals to the working classes, but also house-to-house collections among the middle classes and the well-to-do. A vote of thanks to the Chairman was then carried with acclamation, and the proceedings terminated.

SANITARY LEGISLATION CONFERENCE.

THIS Conference held its fifth meeting on Tuesday last at Argyll-place, Regent-street, when Mr. C. C. Lacaita, M.P., Dr. Farquharson, M.P., and Dr. Cameron, M.P., who, with Sir W. Guyer Hunter, M.P., and Sir Henry Roscoe, M.P., have charge of the Sanitary Registration of Buildings Bill in the House of Commons, were present. In the absence of the President of the Conference, Sir Joseph Fayrer, Mr. H. Rutherfurd, B.L., occupied the chair, and explained that the object of the present meeting was to confer with members of Parliament on the subject of the second reading of the Sanitary Registration of Buildings Bill. Mr. Lacaita, M.P., said the present Bill was to some extent a compromise with an uneducated public opinion. The clauses of the Bill had been framed more or less on the principle that registration should be compulsorily enforced in those cases where the actual residents had not got it in their power to ascertain the sanitary state of houses in which they lived. There was one very grave omission from the Bill in that respect: the great class of tenement buildings often exhibited conditions inimical to health, but the promoters of the Bill and the Conference had considered this class to be dealt with in this Bill. Supposing the Bill became law more or less in its present shape, there would be little difficulty in extending its provisions in modifying circumstances to tenement buildings. The principle of the Bill obviously was that inspection should not be conducted by public officers as such, but that it should be in the power of every owner, lessee, or occupier to go to any licensed practitioner in sanitary science just as he would go to consult any doctor he chose about his own health; but, on the other hand, that the public authorities should be responsible for the registration of the certificates when given, and for the competency of persons who were to certify, they had the guarantee of the Local Government Board or the other responsible bodies mentioned in the Bill. The Bill was down for the second reading on June 22nd.

General Sir Peter Lumsden proposed that a petition from the Conference be presented in support of the second reading of the Bill. Dr. Farquharson seconded the resolution, which was passed unanimously; and it was resolved to leave the convening of the next meeting of the Conference in the hands of the president, vice-presidents, and hon. secretary.

THE SIXTH INTERNATIONAL CONGRESS OF HYGIENE.

THE sixth gathering of sanitary reformers, representing almost every civilised nation in the world, promises to be an exceptionally brilliant affair. It should have taken place last year, for these congresses are held every two years, and it will be three years next autumn since the Congress last met at the Hague. The exact cause of the postponement is not given, but doubtless the cholera epidemics are not foreign to this delay. In any case, everything has been done to make up for loss of time, and the organisers have certainly succeeded in drawing up a most attractive programme. His Majesty the Emperor of Austria and Hungary has granted a subvention to the Congress, and the Crown Prince, Archduke Rodolphe, is its patron. The highest functionaries of the empire, the leading ministers, notably the President of the Council and Minister of the Interior, Count Taaffe, are honorary presidents of the Congress. All the ministries have appointed special delegates, as also the Diets of Upper and Lower Austria, of Carinthia, Bohemia, Moravia, Silesia, and Galicia. Subventions have also been granted, so that the whole empire will be thoroughly represented. The various leading towns and municipalities have likewise joined the movement, and the Austrian railway companies, together with the Danubian navigation companies, have granted a reduction of 50 per cent. on all fares charged to members of the Congress.

A preliminary meeting of the members of the Congress will be held in the evening of Sept. 25th, and a solemn opening ceremony will take place on the morning of the 26th. In the afternoon there will be an excursion to Kahlenberg. The Congress will sit throughout the week, with the exception of Thursday, when an excursion will be made to Höllenthal, Semmering, and the water intake of Kaiserbrunnen. Numerous receptions are to be held, a club will be provided for the use of the members of the Congress, all institutions of interest at Vienna are to be visited, and facilities given for attending at the theatres. On Monday, Oct. 3rd, a special boat will take the members of the Congress who choose to remain after the debates are terminated down the Danube to Buda-Pesth, where an official reception is announced. After visiting the principal objects of interest in the capital of Hungary, the excursionists are to return on the following day to Vienna. It is probable that from twenty-five to thirty nationalities will be represented, and we are pleased to note amongst those already announced to read papers the names of Professor W. H. Corfield, Mr. Shirley F. Murphy, and Dr. Franklin, from England; together with Dr. Brouardel, Dr. Proust, Dr. Jacques Bertillon, and many other eminent Frenchmen; Dr. Corradi and Dr. Pini, from Italy; Professor Max von Pettenkofer, from Germany; Professor Gruber, from Vienna; Professor Hauser, from Madrid; Dr. Bambas, from Athens; and Dr. A. Beaujon, from Holland. Several doctors from Switzerland, Sweden, Belgium, and Denmark have also promised papers. The subjects selected are of a thoroughly practical character, and the Congress promises to be fruitful in good results. Could not the seventh International Congress of Hygiene be held in London?

NORTH LONDON HOSPITAL FOR CONSUMPTION.—The annual festival in connexion with this institution was held on the 15th inst. at the Langham Hotel, Mr. F. D. Mocatta presiding. Since the foundation of the hospital in 1860, 170,000 patients have been treated. Last year 318 in-patients were received at the hospital at Hampstead, while 2700 out-patients attended at the branch in Tottenham-court-road. In the course of the evening subscriptions to the amount of about £2500 were announced, including a conditional donation of £1000.

THE foundation-stone of a new College of Science, affiliated with Durham University, was laid on the 15th inst. at Newcastle-on-Tyne by Sir W. G. Armstrong. The site covers two acres of ground, and the college will cost, when completed, £20,000.

MEMORIAL PORTRAIT OF

SIR WILLIAM JENNER, BART., K.C.B., M.D.

THE following is a list of the Committees up to June 14th:—

General Committee.

Sir George Burrows, Bart., M.D., Chairman.
Sir James Paget, Bart., Vice-Chairman.
Dr. Charles J. Hare, G. D. Pollock, Esq., } Hon. Treasurers.
Dr. J. Russell Reynolds, Sir Henry Pitman, } Hon. Secretaries.

Adams, Wm., Esq., Regent's-park-road.
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Andrew, Dr. James, Harley-street.
Bastian, Dr., Queen Anne-street.
Beck, Marcus, Esq., Wimpole-st.
Best, Palemon, Esq., J.P., Louth.
Birkett, Dr., Russell-square.
Bond, Dr.
Brodie, Dr. G. B., Chesterfield-st.
Brunton, Dr. T. L., Welbeck-street.
Buchanan, Dr. G., Nottingham-place.
Champneys, D., Great Cumberland-place.
Clark, Sir Andrew, Bart., M.D., Cavendish-square.
Corfield, Dr. W. H., Savile-row.
Coupland, Dr., Weymouth-street.
Crawford, Sir T., K.C.B., Director-General, Army Medical Department.
Cribb, Dr. A. J., Highbury.
Duckworth, Sir Dyce, M.D., Grafton-street.
Dukes, Dr. Clement, Rugby.
Duncan, Dr. J. Matthews, Brook-street.
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Fairbank, Wm., Esq., Windsor.
Fayrer, Sir Joseph, K.C.S.I., M.D., Wimpole-street.
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Frank, Dr.
Garrod, Dr. A. B., Harley-street.
Gee, Dr., Wimpole-street.
Gowers, Dr., Queen Anne-street.
Greenfield, Dr. W. S., Edinburgh.
Greenhow, Dr., Reigate.
Gull, Sir Wm., Bart., M.D., Brook-street.
Harley, Dr. G., Harley-street.
Hewitt, Dr. Grailly, Berkeley-sq.
Hickman, Wm., Esq., Dorset-sq.
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Ingham, Dr. Amos, Haworth.
Jackson, Dr. J. H., Manchester-sq.
Jackson, T. V., Esq., Mayor of Wolverhampton.
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Jones, Dr. J. Talfourd, Eastbourne.
Knapton, Geo., Esq., Southport.
Legg, Dr. J. Wickham, Green-st.
Lister, Sir Joseph, Bart., Park-crescent.
Marsh, Howard, Esq., Bruton-st.
Marshall, John, Esq., J.P., Dover.
Marston, Dr. J. A., Army Medical Department.
Martin, Dr. R., Queen Anne-st.
Martin, A. H., Esq., Evesham.
Merriman, John, Esq., Kensington.
Money, Dr. Angel, Harley-street.
Monro, Dr. Henry, Upper Wimpole-street.
Moore, Dr. W. W., Brighton.
Oliver, Dr. George, Harrogate.
Patten, C. A., Esq., Ealing.
Pavy, Dr., Grosvenor-street.
Philipson, Dr., Newcastle-on-Tyne.
Playfair, Dr., George-street, W.
Poore, Dr. G. V., Wimpole-street.
Potts, Wm., Esq., Albert-terrace.
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Quain, Dr. Richard, Harley-street.
Rigden, Walter, Esq., South Kensington.
Ringer, Dr. Sydney, Cavendish-place.
Roberts, Dr. F. T., Harley-street.
Royle, Arnold, Esq., Army Medical Staff.
Saunders, Sir Edwin, George-st.
Scott, Dr. H., Upper Woburn-pl.
Semple, Dr. R. R., Torrington-sq.
Sewell, Dr. C. B., Cavendish-sq.
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Waggett, Dr. John, Bournemouth.
Wallace, Dr., Southsea.
Whiting, Dr. H. Townsend.
Williams, Dr. John, Queen Anne-street.
Wood, Dr. Wm., Harley-street.

Executive Committee.

Sir Henry Thompson, Chairman, 35, Wimpole-street, W.
Adams, William, Esq., Tower Lodge, 2, Regent's-park-road, N.W.
Dr. George Vivian Poore, 30, Wimpole-street, W.
Dr. Chas. J. Hare, Berkeley House, Manchester-square, W., George David Pollock, Esq., 36, Grosvenor-street, W. } Hon. Treasurers.
Dr. J. Russell Reynolds, 38, Grosvenor-street, W., Sir Henry Pitman, 28, Gordon-square, W.C. } Hon. Secs.

Anyone desiring to have his name added to the General Committee should signify the same without delay to either of the Honorary Secretaries.

Subscriptions may be sent to any one of the Hon. Treasurers or Hon. Secretaries.

June 14th, 1887.

MEDICAL TRIAL.

RESTORATION OF A DENTIST'S NAME TO THE REGISTER.

REG. *v.* THE GENERAL MEDICAL COUNCIL.

JUDGMENT was delivered on Wednesday last by Mr. Justice Mathew in this case, which was an application on behalf of Mr. H. F. Partridge for a *mandamus* ordering the General Council of Medical Education of the United Kingdom to restore the name of Mr. Partridge to the Register of Dentists kept under the Dentists Act, 1878. The rule was argued last sittings before Mr. Justice Mathew and Mr. Justice A. L. Smith.

Mr. Justice Mathew now delivered the judgment of the Court. His Lordship said the applicant had, since 1867, practised in the metropolis as a dentist, and it was admitted that when the Act passed he would have been entitled to be registered as a dentist if an application had been made by him in accordance with the provisions of Section 7. He had not, however, applied for registration in respect of this qualification. In 1878 he obtained from the Royal College of Surgeons, Ireland, a diploma in dentistry, and as a licentiate of this body, which was one of the medical authorities referred to in the Act, he applied for and procured registration under the statute (Section 6). The diploma had been granted on the terms that the holder should not seek to attract business by advertising or by any practice considered by the College unbecoming, and that the diploma might be cancelled on its being proved to the satisfaction of the President and Council that he had done so. In the year, 1883, the Royal College of Surgeons of Ireland, upon the ground that Mr. Partridge had advertised for business, cancelled his diploma, and thereupon the General Council directed his name to be erased from the Register. Section 11 contains provisions as to the corrections to be made from time to time in the Register, and it was argued for the General Council that, where the original qualification no longer existed, the Council were bound to correct the Register and erase the name. It was argued for the applicant that the name of a person qualified either by practice or diploma and once properly placed on the Register could only be erased in the manner and upon the grounds specified in the statute It was urged that the mere fact that the diploma had been cancelled by the medical authority which had granted it was not a ground upon which the General Council was justified in disqualifying the applicant or exposing him to the penalties imposed by the Act upon unqualified practitioners. We are of opinion that the contention of the applicant is right and that he is entitled to have his name restored. [His Lordship here read Section 13, and also referred to Section 15.] It appears to us that, in such a case as the present, the Medical Council possessed no further powers of dealing with the Register than those conferred in the sections referred to. It was admitted that the Council had not decided that Mr. Partridge had done anything to justify the removal of his name under Section 13, but had considered that they were bound to erase his name when the determination of the medical authority granting the diploma had come to their knowledge. This is a course which, it seems to us, they were not entitled to adopt, otherwise where a medical authority has withdrawn a diploma on the ground, for instance, that a particular theory of dental surgery had been adopted or discarded, the name of the holder must be struck from the register. But this is a ground upon which the General Council under Section 13 are expressly prohibited from erasing a name. The third clause of Section 13 appears to show that the Council was not intended to be bound by any determination of the medical authority, even with respect to the grounds for erasing a name specified in Section 13, but was required to adjudicate independently. This view is strengthened by an examination of the provisions in the last clauses of Sections 13 and 14. The Act appears to be carefully framed to restrict the right of the General Council to interfere with registered dental practitioners in the practice of their profession to the cases where there are the grave reasons for disqualification specified in Section 13.

The rule for a *mandamus* was accordingly made absolute, but, on an application on behalf of the Council, was ordered not to be drawn up for a week.

Mr. Finlay, Q.C., and Mr. Lyon were for the applicant; and Mr. Kennedy, Q.C., and Mr. Muir Mackenzie for the Council.

THE Lord Chancellor has received a memorial from the laity of the Church of England praying for a limitation to be imposed by authority on the publication of obscene and unnecessary details of divorce and criminal cases. The memorial was signed by 124 peers, 46 medical men, 76 officers of the army and navy, and 44 solicitors, there being altogether 4000 signatures.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 6237 births and 3340 deaths were registered during the week ending June 11th. The annual rate of mortality in these towns, which had been 20·4 and 19·5 per 1000 in the preceding two weeks, further declined last week to 18·9, and was lower than in any preceding week of this year. During the first ten weeks of the current quarter the death-rate in these towns averaged 20·3 per 1000, and was 1·5 below the mean rate in the corresponding periods of the ten years 1877-86. The lowest rates in these towns last week were 11·3 in Leicester, 13·2 in Portsmouth, 13·3 in Bristol, and 13·9 in Derby. The rates in the other towns ranged upwards to 24·6 in Newcastle-on-Tyne, 27·6 in Oldham, 28·9 in Manchester, and 29·4 in Birkenhead. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 532, 522, and 521 in the preceding three weeks, further declined last week to 489; they included 227 from measles, 127 from whooping-cough, 55 from scarlet fever, 31 from "fever" (principally enteric), 29 from diarrhœa, 17 from diphtheria, and only 3 from small-pox. No death from any of these zymotic diseases was registered during the week in Leicester or in Derby; while they caused the greatest mortality in Manchester, Salford, Oldham, and Norwich. The highest death-rates from measles occurred in Brighton, Birkenhead, Sheffield, Newcastle-upon-Tyne, Salford, Oldham, Manchester, and Norwich; from whooping-cough in Liverpool and Norwich; from scarlet fever in Birkenhead; and from diarrhœa in Preston. The 17 deaths from diphtheria in the twenty-eight towns included 9 in London, 3 in Oldham, and 2 in Bradford. Small-pox caused 2 deaths in Sheffield and 1 in Birmingham, but not one either in Greater London or in any of the twenty-five other large provincial towns. Only one case of small-pox was under treatment on Saturday last in the metropolitan hospitals receiving cases of this disease; and no new case was admitted to these hospitals during the week. The deaths referred to diseases of the respiratory organs in London, which had been 333 and 264 in the preceding two weeks, further declined last week to 259, and were two below the corrected weekly average. The causes of 70, or 2·1 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Nottingham, Portsmouth, and in six other smaller towns. The largest proportions of uncertified deaths were registered in Oldham and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·6 and 19·8 per 1000 in the preceding two weeks, rose again to 21·9 in the week ending June 11th; this rate exceeded by 3·0 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 18·7 and 19·2 in Leith and Greenock, to 22·7 in Perth and 27·3 in Paisley. The 546 deaths in the eight towns last week showed an increase of 51 upon the number in the previous week, and included 35 which were referred to whooping-cough, 12 to diarrhœa, 9 to scarlet fever, 8 to "fever" (typhus, enteric, or simple), 8 to measles, 4 to diphtheria, and not one to small-pox; in all, 76 deaths resulted from these principal zymotic diseases, against 82 and 50 in the preceding two weeks. These 76 deaths were equal to an annual rate of 3·0 per 1000, which was 0·2 above the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 43 and 32 in the preceding two weeks, rose again last week to 35, and included 11 in Glasgow, 9 in Edinburgh, 6 in Dundee, 4 in Greenock, and 4 in Leith. The deaths from each of the other zymotic diseases also showed an increase upon the low numbers in the previous week. The deaths attributed to diarrhœa exceeded by 5 the number returned in the corresponding week of last year. Of the 9 fatal cases of scarlet fever, 6 occurred in Glasgow and 2 in Dundee; while 6 of the 8 fatal cases of measles also occurred in Glasgow. Five of the 8 deaths referred to "fever," and 3 of the 4 fatal cases of diphtheria, were also returned in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 126, 109, and 102 in the preceding three weeks, rose again last week to 109, and exceeded the number returned in the corresponding week of last year by 19. The causes of 72, or more than 13 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 24·1 and 21·4 per 1000 in the preceding two weeks, rose to 31·2 in the week ending June 11th, considerably exceeding the rate in any recent week. During the first ten weeks of the current quarter the death-rate in the city averaged 29·0 per 1000, the mean rate during the same period being but 18·4 in London and 19·8 in Edinburgh. The 211 deaths in Dublin last week showed an increase of no less than 66 upon the number returned in the previous week; they included 18 which were referred to measles, 3 to "fever" (typhus, enteric, or simple), 3 to scarlet fever, 2 to whooping-cough, 2 to diarrhœa, 1 to diphtheria, and not one to small-pox. Thus the deaths resulting from these principal zymotic diseases, which had been 27 and 21 in the preceding two weeks, rose last week to 29, and exceeded the number returned in any previous week of this year; they were equal to an annual rate of 4·3 per 1000, the rates from the same diseases being 3·0 in London and 2·8 in Edinburgh. The fatal cases of measles, which had been 8, 17, and 10 in the preceding three weeks, rose last week to 18, and exceeded the number in any previous week of this year. The deaths from the other zymotic diseases scarcely differed from those returned in the previous week, the 3 deaths from "fever" corresponding with the number in each of the preceding two weeks. Compared with the numbers in the previous week the deaths of infants showed a decline, while those of elderly persons had considerably increased. Three inquest cases and 4 deaths from violence were registered; and 55, or more than a fourth, of the deaths occurred in public institutions. The causes of 25, or very nearly 12 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

Brigade Surgeon Ramsden and the Officers of the Army Medical Staff at Alexandria entertained Surgeon-General O'Nial, C.B, at dinner at the Mohamed Ali Club, prior to his departure for England by the Messageries Maritimes mail steamer.

Surgeon-Major F. W. Trevor has assumed the medical charge of the military prison, and of the officers, women, and children in the North Camp, Aldershot, relieving Surgeon-Major J. W. Morgan, whose time of appointment has expired.

Brigade Surgeon J. Paxton, Colchester, has been appointed officiating Principal Medical Officer, Eastern District, during the absence on leave of Deputy Surgeon-General T. W. Fox.

INDIA OFFICE.—The Queen has approved of the following promotions among the Officers of the Staff Corps and Indian Military Forces, made by the Governments in India:—Surgeons to be Surgeons-Major (dated March 31st, 1887): George Spiers Alexander Ranking, M.D., Robert Davidson Murray, Dennis Wood Deane Comins, Patrick Fenelon O'Connor, James Moran, M.D., William Beatson, William Allason Simmonds, Roderick Macrae, Thos. Elwood Lindesay Bate, and Shibram Borah, of the Bengal Medical Establishment; Surgeon G. Tucker Thomas (dated March 31st, 1887), Surgeon Arthur James Sturmer (dated March 31st, 1887), and Surgeon Archibald Adams, M.D. (dated March 31st, 1887), of the Madras Medical Establishment; and Surgeon Arthur Henry Coles Dane, M.D. (dated March 31st, 1887), Surgeon John Philip Greany M.D. (dated March 31st, 1887), Surgeon John Edward Ferguson (dated March 31st, 1887), Surgeon George Edward Elton Burroughs (dated March 31st, 1887), and Surgeon James McCloghry (dated March 31st, 1887), of the Bombay Medical Establishment.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon Walter F. Cope Bartlett has been placed on the retired list,

with permission to assume the rank of Deputy Inspector-General of Hospitals and Fleets (dated June 9th, 1887).

The following appointments have been made:—Fleet Surgeon James Flanagan, to the *Castor;* Fleet Surgeon Edwd. Meade, to the *Cambridge;* and Fleet Surgeon George Mair, to the *Iron Duke.*

Correspondence.

"Audi alteram partem."

"PASTEUR'S METHODS."

To the Editors of THE LANCET.

SIRS,—Will you kindly permit me to offer some remarks in reply to "R.J.P.S.," who writes on the above subject in your issue of the 23rd of April. Your correspondent says that while expressing my anxiety that the dangers of M. Pasteur's prophylactic treatment for hydrophobia should be recognised, I seem somewhat to ignore the much greater danger of untreated bites from rabid animals. But as in my humble opinion, M. Pasteur's methods when they are not hurtful are inefficacious, I submit "R. J. P. S." begs the question. If M. Pasteur's intensive method is attended with the risks indicated by M. Peter clinically, and by von Frisch and others experimentally, it surely introduces an additional danger, since in no case can we be certain that the victim of a bite has been inoculated with rabic virus, though according to M. Pasteur all cases must be dealt with on the assumption that infection has occurred. Here, then, in addition to the danger which is involved in the bite, we have that which may follow the intensive treatment. Your correspondent admits that some of the deaths which have occurred during the present year "very possibly" resulted from the treatment: that being so, I think the concession ought to follow that the experimental test—which M. Pasteur admits to be crucial, and by which he obtained results which neither von Frisch, nor Renzi, nor Amoroso could obtain—should be as expeditiously as possible carried out openly in the presence of those who are opposed to him, and that in the meantime M. Pasteur should revert to his former method, which is comparatively, if not quite, harmless. Your correspondent holds that "it is largely a question of statistics." No doubt that is so, but not of statistics founded on possibilities which are to be accepted as facts. Now, if he accepts M. Pasteur's figures and the deductions which he and his partisans draw therefrom, he will find that cases of hydrophobia in France and Algeria rose suddenly and unaccountably, and without any corresponding increase of rabid animals, from about 50 to 308, omitting all notice of those deaths which occurred outside M. Pasteur's practice. Thus, taking their estimate of 16 per cent. as the incidence of hydrophobia in rabid animal bite cases, and the number of French and Algerian patients treated by M. Pasteur in 1886 at 1929,[1] we have 308. Trousseau told his pupils that hydrophobia was a disease which very rarely occurred in the human subject, and that in France, with a population of more than 36,000,000, only 20 to 25 cases of the disease occurred annually. More recently the average has been fixed at 30. Now, allowing 20—an excessive estimate—for Algeria, we have 50. Then again, how are we to account for the extraordinary circumstance that, notwithstanding M. Pasteur's method, the average annual mortality from hydrophobia in France has not been reduced, but, on the contrary, according to French authorities, it has increased nearly one-third? I have recently submitted to the Government of Bengal a report, founded on the returns of animal bite treated at the dispensaries in Bengal with the local application of potassic permanganate, as advocated by me in 1881, and here furnish some statistical information which, to my mind, is most significant as illustrating the uncertainties of infection with rabic virus in animal bite. I must premise that as a test of the efficacy of the treatment I regarded the returns as unsatisfactory. A reference to your issue of January 29th, 1887, will show that of the forty-eight persons supposed to have been bitten by rabid wolves, seven died. This gives a percentage of 14·58, not 14·0, as M. Grancher has it. Now, the returns with which I had to deal showed forty-two cases of supposed rabid jackal bite, with six deaths, or 14·28 per cent., 0·30 per cent. in favour of the cases in which M. Pasteur's method found no place, and this, too, after eliminating some cases in which the animals had attempted to carry off infants from hunger, and in which no mortality had occurred. Here the jackal takes the place of the wolf, and so far as is known, with the exception of the circumstances mentioned above, it never attacks except when rabid. The fact is, that statistics dealing with methods in cases of doubtful infection are very unsatisfactory, as the data are often of a most erratic character. Take for instance, the following example: At Chumparun twenty-four persons, consisting of ten men, eight women, and five boys, and one of whom no information is afforded, were attacked in one evening by a rabid jackal. This occurred in the beginning of the year 1886. Twenty-three of these people came under the treatment of the assistant-surgeon, but although potassic permanganate was applied, my instructions were not strictly observed. Four of these people died, but, strangely enough, not a single one of the ten men was affected, the victims being three women and one boy. Then again, I found that, after eliminating clearly unsatisfactory cases in which there was no death, of twenty-seven women who were bitten and treated, seven, or 25·9 per cent., and of twenty-four children, four, or 16·6 per cent., died; while only two of the 123 men, or 1·6 per cent., succumbed; and that out of twenty-four men bitten by rabid jackals, only one, or 4·1 per cent., died. Who, may I ask, is justified after this in relying upon statistics alone as proof of the value of his methods of treating cases of this kind? Surely it is not unreasonable to demand that the following question shall be definitely answered and demonstrated by M. Pasteur: Does his method prevent rabies in the dog after it has been infected in the only natural way that infection takes place—namely, by inoculation with the saliva?

In conclusion, allow me to point out a significant fact, and one that should be noted as evidence of M. Pasteur's ever-changing tactics. A medical man in India imagined himself to have been bitten by a rabid dog which had bitten three others, who, so far as we are informed, still remain unaffected, and submitted himself to M. Pasteur's treatment. In his own words I give the description of treatment adopted in his case: "I had to go and be inoculated morning and evening for six days; then every morning for five days. I was finished last Friday, but they asked me, if not inconvenient, to stay in Paris for five or six days more, and then report myself, when a few more inoculations *might* be necessary. After that they said, 'You can go with the most perfect confidence.' They begin with virus fourteen days old, and go on up to that only five days old; they don't use any stronger than that, but virus under seven days will infallibly give a dog rabies."[2] Assuming this to be an accurate description of his treatment, who, with the words of MM. Pasteur, Grancher, and Vulpian ringing in his ears, is not justified in exclaiming, as to M. Pasteur's "methods"—*Credat Judæus apella!*

I am, Sirs, yours truly,

May 14th, 1887. VINCENT RICHARDS.

[1] M. Grancher's figures, THE LANCET, Jan. 29th, 1887.

"PLACENTA PRÆVIA."

To the Editors of THE LANCET.

SIRS,—Dr. Barnes's criticism on my case of Placenta Prævia in THE LANCET of June 4th, is not quite clear to me. He approves of detaching the placenta, but not of the version and plugging the cervix with the breech. Does he appreciate the conditions of the case? I went to it not knowing its nature, and, not possessing his hydrostatic bags, I had to resort to other methods. Having detached the placenta from the whole of its attachment, ruptured the membranes, and the liquor amnii having escaped, a foot was brought down, which I fondly imagined did efficiently compress the placental zone of the uterus and stop the hæmorrhage; but Dr. Barnes objects to my *propter hoc*, and says this was due to the detachment of placenta only. Would he, if called to a similar case, *without his hydrostatic bags*, have been content to detach the placenta, put on a binder, and leave the case to nature after such sudden and alarming hæmorrhage? The child had virtually no claim to consideration at the seventh month, of a delicate mother, and two generations' heredity of a fell disease; but had it been

[2] Indian Medical Gazette for April, 1887.

an expectant heir, I should still have turned, but completed the labour, having used more oxytocic agents, and dealt with post-partum hæmorrhage as it required. I have just refreshed my knowledge of this subject by reading Dr. Barnes's clinical lecture on Placenta Prævia in THE LANCET, vol. i., 1861. The third case there related has many points in common with mine. The woman at 4 A.M. was found faint and anæmic from loss of blood; placenta quite over centre of os, which was the size of half-a-crown; no bleeding and no pains at time of examination; but delivery was urgent from exhaustion; so the placenta was detached from the lower zone of the uterus, a bag applied, and the cervix freely expanded in about five minutes, but no pains. "I was, however, enabled to pass my hand by the placenta and reach the membranes, which I ruptured with a skewer..... head was presenting. A foot was easily seized. I ascertained that neither cord nor heart was pulsating.....Child extracted.....premature and stillborn. Uterus made to contract by pressure.....the placenta was speedily cast and withdrawn. No hæmorrhage followed the labour. The patient recovered well. In this case, *had I not possessed the caoutchouc dilator*, I should have been compelled to stretch open the cervix with my fingers at the risk of injury, or to encounter the alternative risk of renewed flooding and a lingering labour, with exhausted uterine power. If the uterus still remain flaccid, and if hæmorrhage continue, or generally *where the patient is much exhausted*, so that effective muscular contraction cannot be roused, artificial aid is called for in order to accelerate delivery." He then advises version, if the cervix can be easily expanded (as in my case), or, if undilated and rigid, to use the bags. There was no need to dilate either with bags or fingers, and version was accomplished with the greatest facility and with a happy result. Would Dr. Barnes have completed delivery at once, without uterine pains, or would he have waited?

I am, Sirs, yours truly,

Spondon, Derby, June 13th, 1887. B. WALKER.

TERRIER'S NEPHRECTOMY.

To the Editors of THE LANCET.

SIRS,—In your issue of June 4th you give a leading article under the above heading, and in referring to a paper in the *Revue de Chirurgie*, by M. Terrier, speak of the method as a new one. Two years ago I removed a large diseased kidney by an operation which seems to me essentially like the one you describe. After opening the abdomen over the site of the tumour, I incised the visceral peritoneum vertically over the kidney, enucleated the diseased organ, and carefully stitched the edges of the visceral peritoneum to the margin of the wound, thus completely shutting out the peritoneal cavity from the field of operation, and especially from the cut ureter, the wound being drained to the front. This operation I have since seen performed by one of my colleagues. At the time I did not think there was anything new in the operation, supposing that what seemed to be such an obvious method of shutting out the peritoneal cavity and draining the wound must have been followed out by others. It is my intention in my next nephrectomy to perform the operation in an exactly similar manner; but, instead of draining forward, to push a trocar through the loin, and through the opening so made to pass the detached ureter, together with a celluloid or some firm drainage tube, and afterwards to completely close the anterior incision. As the question has now come to the front, I will take an early opportunity of giving a detailed report of the case.

I am, Sirs, yours truly,

Leeds, June 6th, 1887. A. W. MAYO ROBSON.

TRANSFUSION.

To the Editors of THE LANCET.

SIRS,—In your issue of June 4th, Dr. J. Graham Brown has pointed out that, in a paper on a case of Transfusion which appeared in THE LANCET of April 16th I erroneously attribute the method there described to Mr. Annandale, whereas it was really introduced by Mr. J. M. Cotterill. I beg to be allowed to thank Dr. Graham Brown for making the correction, and to at once acknowledge and express my regret for the error into which I was led by the fact that the leaflet of instructions furnished by the instrument maker with the apparatus described the method as "Mr. Annandale's." In reply to a letter of inquiry from me, Mr. Cotterill has most courteously furnished me with a succinct statement of the facts of the matter, which I shall esteem it a favour if you will allow me to quote:—

"1. The fact that phosphate of soda solution prevents coagulation of the blood has been known for many years. 2. Dr. Braxton Hicks is reported (Bryant's Surgery') to have suggested its use in transfusion, but whether he actually used it or not I do not know. 3. I performed the operation, as described in the leaflet, in 1883, and taught it to my class of practical surgery as the best method. 4. Two years subsequently Dr. John Duncan, of Edingburgh, performed the operation upon my very strong recommendation, and by the same method. He repeated it frequently, and made some further suggestions, which he published in the *British Medical Journal* of Jan. 30th, 1886. 5. Mr. Lawson Tait read a paper before the Midland Society on the subject, in which he connected Mr. Annandale's name with the operation. No contradiction of this was made, and it is probable that he was led into the mistake in the same way as yourself. 6. Mr. Annandale has authorised me to state that he has had no connection with the introduction of the method, though he has performed it upon several occasions."

I am, Sirs, your obedient servant,

Savile-row, June 10th, 1887. WARRINGTON HAWARD.

THE BATH WATERS AND ARSENIOUS ACID.

To the Editors of THE LANCET.

SIRS,—In a letter on the above subject, which appeared in your issue of January 8th this year, I gave expression to the belief that in the certain discovery of arsenious acid in the Bath thermal waters an explanation was obtained of their behaviour under certain conditions which hitherto had been inadequately accounted for. Since then further very careful experiments have been made for me by my friend, Mr. Gatehouse, with the result that we are in a position to state that a gallon of the waters in question contains as nearly as possible $\frac{1}{10}$ gr. of AS_2O_3. Can this amount be held responsible in any way for the "marvellous efficacy" of these waters in the diseases for which they are extolled? We find that even in the case of resident patients, in whose cure change of air can have had no share, chlorosis succumbs very readily to the waters, taken internally. May not the arsenious acid be the cause here? The amount of iron present per gallon is only $\frac{1}{2}$ gr.—therefore the ratio of the amount of water that contains an ordinary dose of iron to the amount that contains an ordinary dose of arsenic is that of five to four. From this it will be seen that, small as the amount of arsenious acid present may be, the share it takes in the action of the waters is probably great. The amount of arsenic eliminated from the salts of bismuth in the purifying process is small, but there is a great difference between the actions of the purified and unpurified salts. From this it appears that the action of arsenic when in a natural compound is much more marked than its action when given in a prepared form. I am strongly disposed to think that certain reagents—among which I would class arsenic—are specially efficacious when administered in their so-called natural state, as obtains in natural springs, both cold and hot.—I am, Sirs, yours truly,

Bath, June, 1887. T. PAGAN LOWE, M.R.C.S., L.R.C.P. Ed.

THE CONTAGIUM OF SCARLET FEVER.

To the Editors of THE LANCET.

SIRS,—In your issue of last week you noticed in an annotation the most recent work that has been carried on in respect to the *materies morbi* of scarlatina, and, in stating the general conclusions arrived at in that research, you indicated the attitude of guarded reserve in which they must for the present be regarded. Dr. Edington's paper has in the meantime been printed, and a careful survey of its contents seems to me to fully justify the spirit in which your remarks were made. Attention has already been fully directed to the observations of Dr. Klein, and the conclusion arrived at by him based on results of the most unequivocal nature. His conclusion is directly and diametrically opposed to that now under consideration. The issue thus raised is fortunately a direct and limited question of fact; it is, moreover, satisfactory to find that Dr. Edington's statement is sufficiently explicit to

render it readily susceptible of confirmation or disproof. Amongst many organisms found by him in scarlet fever blood and desquamation, the description of which is a distinct addition to our knowledge of the disease, is a small bacillus 0·4 μ in breadth and 1·4 μ in length, which he describes as the specific virus of the disease. This organism is found in the blood of patients up to the third day, and in the desquamation on and after the twenty-first day: in the intermediate period of eighteen days it cannot be demonstrated in any of the tissues examined. Obtained as a pure cultivation in nutrient media it has distinctive specific characteristics in its mode of growth, and if inoculated into calves, guinea-pigs, or rabbits, it produces a disease closely resembling scarlatina, and ending in a desquamative stage. Closely associated with this organism is a micrococcus form, of frequent occurrence in the blood and desquamation, but without pathogenetic effects if inoculated. It is noted, however, that in cases where a vivid and general rash is observed, this organism is a constant concomitant of the so-called "bacillus scarlatinæ"; and, supposing the observations to be as careful and accurate as their mode of presentation to the public would lead us to infer, this point may well call for further investigation, for it must strike everyone at all acquainted with the history of such researches that the life history ascribed to this "bacillus scarlatinæ" is strange and unnatural. A solution in the continuity of its demonstrable presence extending over eighteen days is, to say the least of it, a very suspicious point in its behaviour; and it will necessitate a very strict scrutiny of the conditions associated with its reappearance in the desquamation, to establish its identity in its two manifestations, and to exclude the possibility of aerial contamination under an aseptic dressing three weeks old. Although there are strong points in its technical arrangement which commend this research to favourable consideration, there are some grave omissions in the detailed account before me. The bacillus as found in the blood is not figured, nor are we told whether it is readily demonstrable from its large numbers, or only found in isolated scarcity, in that medium. Neither is any hint given as to the manner of its disappearance from the blood. It does not appear to have been found in the urine, and although spore formation is mentioned, it is neither figured nor described. The suggested *rationale* of its disappearance as due to an exhaustion of its special pabulum is obviously but an *obiter dictum*. There is also a lack of control experiments in regard to organisms normally present in the skin. Until these points are more fully elucidated, it is not possible to accept this bacillus as the *materies morbi* of scarlatina.

In view of the interest at present attaching to the question of the zymotic origin of the disease, it may not be out of place to refer to some of the best known recent publications which have appeared upon the subject. I need not refer to the statement of Dr. Klein's results, already detailed in THE LANCET of May 28th, nor repeat the facts observed by Mr. Power, but refer to some prior investigations of which Dr. Klein's paper affords confirmation, and to which it adds the conclusiveness they themselves lacked. Coze and Feltz ("Maladies Infectieuses," 1872) described a diplococcus in connexion with the disease which they looked on as a causal agent in its production. Pohl-Pincus (*Centralblatt f. d. Med. Wissenschaft*, 1883) described a similar organism in the desquamation, on the skin surfaces, and on those of the palate and pharynx. Crooke (THE LANCET, 1883) described a large bacillus in the last of these situations; but in a subsequent paper from Eberth's laboratory (*Fortschritte der Medicin*, 1885), he recounts the results of a long series of experiments in which micrococci were found, chiefly in the tissues of the neck, and more rarely in distant internal organs. He does not appear to have examined the blood in these cases. In a few very severe cases bacilli made their appearance at the end of the second or the beginning of the third week, but they were not seen in ordinary cases, and he does not ascribe any pathogenetic significance to their presence. Bokai of Buda-Pesth ("Orvosi Hetilap," 1885) found micrococci single and in chains in the post-scarlatinal joint affections. A negative result is recorded by Cornil and Babes ("Les Bactéries," 1885), who examined the desquamation for the presence of organisms. The organisms normally present on the human skin are no less important in their relation to the present question; they are described by Bizzozero (Virchow's *Archiv*, Bd. 98 iii., 1884), and by Bordoni-Uffreduzzi (*Fortschritte der Medicin*, 1886). The latter describes five varieties of micrococci and two of bacilli as normally present. His description of one of the latter, B. epidermis, so closely resembles that given by Edington of his B. scarlatinæ, as to suggest their identity.

I remain, Sirs, yours obediently,

June 15th. M.D.

THE PRACTICAL ELEMENT IN MEDICAL EDUCATION.

To the Editors of THE LANCET.

SIRS,—Requiring an assistant lately to help in my surgery, I engaged a gentleman who said he had been taught practical pharmacy at a large London Hospital. Finding him very slow in dispensing, I made inquiries. He tells me he was never allowed to make up a prescription for a patient, or even to compound a stock mixture. He had never made a pill, and did not know how to spread a blister. He was simply shown the drugs and told to learn their composition and uses, and for this he had to pay four guineas. He then goes to the College of Physicians and passes his examination in materia medica, the chief questions being the action of the alkaloids on the system, and all this before being taught to compound medicine. Sir W. Gull may deprecate drugs, but the large majority of medical men, as well as their patients, believe in their efficacy, and what is wanted is to teach the student the real practice of the medical art, such as he will need in his after professional life. I do hope that the appointment of Dr. Glover's committee will lead to some form of the old apprenticeship being made compulsory. It would be more useful than attending routine lectures, which most students hate and would gladly dispense with.

I am, Sirs, yours truly,

June, 1887. A GENERAL PRACTITIONER.

NORTHERN COUNTIES NOTES.

(*From our own Correspondent.*)

THE NEWCASTLE EXHIBITION.

LAST week must be considered a most successful one for our Exhibition, as nearly 120,000 visitors went up to the Moor. The weather was very dull on Saturday, but towards evening it underwent a favourable change, which has still continued. An accidental circumstance has given a variety to the throng of excursionists in our city. A few days ago the Chinese steamer Toonan came into the Tyne, with nearly 700 "Celestial" sailors on board. They have come to take charge of some Chinese war ships now fitting up at Sir W. Armstrong's. These sailors crowd the streets, and create no little curiosity as they go about in their picturesque groups.

SUNDERLAND.

Mr. A. E. Harris, medical officer of health for Sunderland, is to be congratulated on the present sanitary condition of his borough. During the past week the death-rate was only 15·7, being the lowest point indicated in the list of the twenty-eight great towns. The epidemic of measles, which for some time had assumed so alarming an aspect, appears now to be practically suppressed. A few years ago Mr. Harris, on his appointment to the borough, found a very serious state of matters, and the way he had to grapple with many sanitary abuses before he could effect their removal would have tried the patience of many less determined officers. He is now rewarded, however, for his up-hill work in the present sanitary state of Sunderland.

GATESHEAD.

A letter has been received by the Gateshead Town Council from the Lord Chancellor's secretary, recommending the appointment of new magistrates. Many of your readers will be glad to hear that Dr. George Douglass of Gateshead is included in the list.

HEXHAM.

Lieut.-Colonel Nicholson, who died at his seat, Halliwell Dene, Hexham, on Friday night last, in his sixty-eighth year, was formerly a member of our profession, having served his time to the late Dr. Jefferson of Hexham, and on becoming qualified practised for a few years with much success in this ancient abbey town, but about

twenty years ago he was enabled by fortunate circumstances to exchange the life of a practitioner for that of a country gentleman. He joined the Volunteer movement at its commencement, and rose through its offices until, on the death of the late Earl of Durham, he was further promoted to the command of a battalion, from which position he retired about seven years ago, and was allowed to retain the honorary rank of lieutenant-colonel. He was active in all that pertained to the welfare of Hexham and its district, and retained to the last a warm feeling for his old profession. The writer was present a couple of years since at a meeting presided over by Dr. T. Stainthorpe of Hexham, when this gentleman (whom I am glad to say is still hale and hearty) attained his jubilee in practice at Hexham, and the manner in which he alluded to his old companion in practice, and to his old profession, did equal honour to his heart and mind. In politics the deceased gentleman was a Conservative; he was widely known and respected by all classes. He leaves a widow and daughter, and two sons, the eldest of whom is practising as a solicitor in Hexham.

Newcastle-on-Tyne, June 7th.

EDINBURGH.

(From our own Correspondent.)

ST. ANDREW AMBULANCE ASSOCIATION.

A DEMONSTRATION of ambulance work was given by members of the Scottish Ambulance Association, in the Waverley Market Hall last week, under the presidency of Sir Thomas Clark, Lord Provost of Edinburgh. The hall is a capital place for such purposes, being capable of containing 30,000 people. On the present occasion about 4000 of the general public were present, ranged round a central area in which the manœuvres were carried on. These consisted of the resuscitation of the apparently drowned, of those suffocated in conflagrations, and the treatment of street accidents. Twelve squads of trained men, representative of the police, the tramway company, the railway companies, and several manufactories and works in Edinburgh, gave an admirable demonstration of stretcher drill and of bandaging and "splinting" in cases of injury. The Edinburgh fire brigade added greatly to the interest of the proceedings by an exhibition of life-saving apparatus, and succeeded to admiration in rescuing two victims from a supposed fire in the lofty rafters of the hall. One of their number demonstrated the safety of leaping into a stretched sheet from a height of over forty feet, coming down unharmed, amidst the enthusiastic applause of the audience, who had awaited the *dénouement* with breathless anxiety. Improvised stretchers and surgical dressings made from articles of ordinary costume were also demonstrated, and the excellent hand and waggon ambulances kept by the association for the benefit of the citizens were fully exhibited in action. A statement was made of the work done by the association, which shows it to be in a flourishing condition, and places to its credit a great deal of most useful activity.

THE EDINBURGH CITY JUBILEE OFFERING.

A meeting was held lately to consider the form to be taken by the Jubilee subscriptions now being raised in Edinburgh. After several consultations of an informal nature, it was decided that a medical charity should be inaugurated for the benefit of consumptives. At the public meeting convened to settle the question, it was decided that the charity should take the form of a permanent fund for supplying consumptives with medicines and delicacies at their own homes; not for building a consumption hospital, as was recently announced in a contemporary journal. The reasons assigned for deciding against the hospital were that the Edinburgh climate is such as to render such an institution of comparatively little service, whilst it is thought that the fund applied as above may be a source of great benefit. Bailie Russell, who is chiefly responsible for this decision, said at the meeting that this opinion largely obtained amongst the medical profession in the city. It is doubtful, however, whether it is so unanimously held as he seems to think, and it is not improbable that a *plébiscite* of the profession here would have shown a directly opposite result.

THE JUBILEE DAY.

The city of Edinburgh hold its jubilee holiday on Friday, the 17th; the chief illuminations, including a monster bonfire on Arthur's Seat, will, however, be postponed till the 21st, when the University also will celebrate the auspicious event. A torchlight procession of unprecedented grandeur is to be held by the students in the evening. During the day a commemoration service will be held in St. Giles' Cathedral, at which the University authorities will be present in robes of office, and at which the other leading corporate bodies of the city will attend.

Edinburgh, June 14th.

DUBLIN.

(From our own Correspondent.)

ROYAL COLLEGE OF SURGEONS.

THE Council, at a special meeting held last Monday, the 13th inst., passed a resolution that delegates from the Council should be appointed to confer with delegates from the Apothecaries' Hall, in reference to a conjoint scheme of examination between the two bodies. If the combination is carried out, the question naturally arises, What will the College of Physicians do under the circumstances? Will they retire from their present alliance with the College of Surgeons or not? There are many who say that if the College of Surgeons join the Apothecaries the Physicians will retire from the scheme between the two Colleges; but I differ altogether from this opinion, and believe that the College of Physicians will not be inclined to dissociate themselves from the College of Surgeons. And the reason may briefly be stated: because they can join no other body; and if they refuse, it is probable that coadjutor examiners will not be granted them by the General Medical Council, and if so, they will very soon disappear from the list of licensing corporations in Ireland.

RICHMOND LUNATIC ASYLUM.

The report of Dr. Conolly Norman, resident medical superintendent, for the past year is a very important one, and will well repay perusal. The admissions during the year amounted to 438, a number considerably higher than the average for the last ten years. The deaths numbered 159. A severe form of dysentery occurred during the later months of 1886, and up to the date of the report still continued to prevail in the institution. Dr. Norman, who was appointed to the asylum only last September, is of opinion, from an examination of the death registers of the asylum, and also from the prevalence of diarrhœa and dysentery during his year of office, that these zymotic diseases appear to be endemic in the institution. These diseases and erysipelas, which is rarely absent from the house, are usually due to defective sanitation, and he states that the sanitary condition of the asylum is deplorable. He adduces ample proof of this statement; but as the main points have some months since been already referred to in these columns, I shall not go into details. Several months ago I mentioned the chief defects in the sewerage; and it will be impossible, now that public attention has been directed to the matter, for the governors to shirk the subject any longer. The defects which undoubtedly exist must be rectified, and that without delay. I believe I am correct in stating that a very eminent sanitary engineer has inspected the institution and reported fully to the Board of Governors, and that he has corroborated in the fullest manner the statement of Dr. Conolly Norman as to the sanitary defects of the Richmond Lunatic Asylum.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

The annual meeting of this Society was held last week, and from the report of the Council it seems that its financial state cannot be regarded as satisfactory. At the meeting the sum of £1154 was awarded for distribution, of which £110 was to medical practitioners, £946 to widows, and £98 to orphans. The Society obtained a sum of £55 15*s.*, which was handed over by the Council of the Royal College of Surgeons, in accordance with a proviso in the will of the late Mr. Richard Carmichael.

A CENTENARIAN.

A widow named M'Ananey died last week at Enniskerry, co. Wicklow, in her one hundred and ninth year.

THE REGISTRARSHIP OF BIRTHS ETC. IN CRUSHEEN DISPENSARY DISTRICT: ENNIS UNION.

Dr. W. H. Hynes, medical officer of Crusheen dispensary district, was the registrar of births for his district, but some weeks since he was removed by the Registrar-General for Ireland for the alleged reason that he delayed answering his communications. A successor was appointed without any protest from Dr. Hynes, as, from a monetary point of view, the office was of little value; but, on consideration, he concluded that the question of his removal by the Registrar-General was one of very great importance to dispensary medical officers in Ireland. The gentleman appointed having resigned, Dr. Hynes applied for the post, and this application was received by the guardians some few weeks since. Having heard his explanation, the guardians unanimously passed a resolution to the effect that they considered the Registrar-General had exercised high-handed authority in removing Dr. Hynes in such a summary manner, and that, before such a course had been adopted, the matter should have been referred to them. They further asked the Registrar-General to reconsider the matter and reappoint Dr. Hynes, stating, at the same time, that the "unanswered communications" complained of by the Registrar-General were addressed to Dr. Hynes during his absence on leave. I am informed that the Registrar-General has refused to appoint Dr. Hynes, and that a person whom he selected for the appointment has declined to accept it. An official from the General Register Office, under these circumstances, was sent down from Dublin, where for the past ten days he has tried to get the registrarship accepted, but without success. So the matter stands, and at present there is no registration going on in the Crusheen district, which is rather a serious matter. Dr. Hynes and the guardians complain of the want of courtesy in not consulting them on the subject, and refusing to endorse their recommendation of Dr. Hynes as a competent official. If, as alleged, the appointment of registrar according to the Act of Parliament is vested in the local authority, I cannot see how the Registrar-General can make the appointment. The salary of the post is only about £4 per annum!

Dublin, June 14th.

PARIS.

(*From our own Correspondent.*)

MASSAGE IN FRACTURES.

DR. GEORGES BERNE made an interesting communication to the Société Médicale de l'Elysée on the treatment of certain fractures by massage. After showing the importance of a good venous and lymphatic circulation in fractured limbs, he insisted upon the necessity of keeping the joints in the neighbourhood movable and supple. It is particularly in fractures of the radius and fibula that massage is useful, the inferior epiphyses being supported as it were by natural splints in the shape of the contiguous bones. Where there is not displacement, extensive centripetal *effleurage*, commenced early in the treatment, will promote the absorption of the blood extravasated around the fracture. Von Mosengeil has shown that massage displaces effusions through the lymphatic network of the cellular tissue, and the same thing occurs when centripetal pressure is applied above the seat of fracture. The rapid retraction of the tendinous sheaths of the fingers when they are immobilised is a matter of common experience. Dr. Berne maintains that this accident, almost inevitable with the usual treatment, may be obviated by massage. He states that he was the first to investigate this point in the treatment of fractures of the fibula, which he has treated with complete success by massage for the last three years. In 1884 a patient with a fracture of the lower end of the fibula without displacement was treated by Dr. Coupard and himself in the following manner:—Massage was employed from the very first day, the limb being placed in a plaster *gouttière*, from which it was removed every two days for this purpose. After each sitting of a quarter of an hour the apparatus was reapplied. From the fifteenth day the apparatus was laid aside, and the patient was able to walk without difficulty. The limb was in no way atrophied, and all the movements of the tibio-tarsal and tarsal articulations were natural. The temperature was normal. Other cases in the wards of M. Duplay at the Lariboisière Hospital have shown that there exists no better treatment of fractures of the fibula than *relative* immobilisation in a movable plaster bandage and periodical massage. The mean duration of the treatment by this method is from fifteen to seventeen days, instead of thirty, an important point, especially in hospital practice. Dr. Berne is also an advocate for massage in fractures about the elbow and patella, but he urges the necessity of caution whenever there is displacement or wound of the integument. In all cases, however, he maintains that manipulations should be performed by an expert scientific masseur, never by the so-called medical rubber.

SWEATING SICKNESS.

An epidemic of *suette miliaire* has reigned for some time past in several districts of the department of Vienne, principally in that of Montmorillon, but it has now spread to the surrounding country. At Bussière-Poite-Vinne, a village near Mezières, there are 250 cases amongst 2300 inhabitants, and more than twenty deaths have already occurred, some of them with extreme rapidity. A commission, consisting of MM. Chantemesse, Thoinot, and Descoust, has been sent by the Government to investigate the matter, and M. Brouardel has also gone for the same purpose.

PASTEURIANA.

The *Bulletin Médical* publishes a letter addressed by M. Pasteur to the Imperial and Royal Society of Vienna with reference to Dr. von Frisch's strictures on his method, and the comments thereon of Professor Billroth. M. Pasteur points out that the experiments performed by Dr. von Frisch, the results of which were unfavourable to his method, were made chiefly upon rabbits. He discusses their value, and concludes that "these facts not only ruin the experiments in question, but shake all confidence in the whole work of Dr. von Frisch. We must conclude either that Dr. von Frisch is a bad operator, or else that he allowed the virus, which he obtained in Paris, to become deteriorated." At the last meeting of the Vienna Society, reported in the *Semaine Médicale*, Dr. von Frisch went over the same ground as in his previous communication. He maintained that M. Pasteur's reply was not a refutation of his objections, and said that he was confident the future would decide in his favour. M. Ullmann, on the other hand, submitted three provisional conclusions to the Society, which were as follows: 1. Animals do not become rabid by inoculation with the preventive virus. 2. Some animals can be made refractory to rabies by the preventive inoculations. 3. The statistics of the preventive inoculations made (by M. Ullmann) in man appear favourable to Pasteur's method.

Paris, June 15th.

Obituary.

W. A. B. McCABE, F.R.C.S.

WE regret to record the death of this promising young surgeon, which took place at Sydney on April 18th, at the early age of twenty-five. He was born in Jersey, and received his early education at the Victoria College, St. Heliers. In 1879 he entered in the Faculty of Science of University College, London, and a year later, after passing the Preliminary Scientific Examination with honours, he commenced medical study. After a successful career as a student, he obtained the post of house-surgeon to University College Hospital in 1885, and at the commencement of the following winter session he was appointed Assistant Demonstrator of Anatomy in the College. This post he was obliged to relinquish on account of failing health after holding it for one year. As the winter advanced the symptoms of phthisis became more marked, and he was advised to take a voyage to Australia. Unfortunately severe hæmoptysis came on when he was near the end of the voyage, and he landed at Sydney almost in a dying state. Mr. McCabe was characterised in all he did by a conscientious and honest desire to do his best, and to his unsparing devotion to his duties may in part be attributed his early death. He was a good anatomist and a popular teacher. His genial character endeared him to all who knew him, and his abilities and enthusiasm gave promise, had his life been spared, of a brilliant career in the profession he had chosen.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.—The following gentlemen have recently passed the examination for the licence of the College:—

J. J. Jackson, L.R.C.S. Irel. | A. J. Tomkins, M.R.C.S. Eng.
R. F. McArdle, L.R.C.S. Irel.

COLLEGE OF PHYSICIANS IN IRELAND.—At the June examinations the following obtained licences in Medicine and Midwifery of the College:—

MEDICINE.—Patrick Joseph Barry, Edward Joseph Brady, Stafford Mouritz Cox, John Smyth Crowe, Edwin Tyrrell Cummings, Albert Edward Dyas, Richard Langford Fitzgerald, John Alexander Foreman, Henry Gell, Albert William Gray, Herbert Lennard Hudson, Edward Julian Jacob, Augustus Graydon Johnston, Joseph Christopher Lavertine, Francis James McArdle, Patrick Joseph Molony, John Brooke Moore, Neal Nelson, Richard Pennefather, Horatio Edward Rawlings, Edmund Boys Russell, John Stewart, Francis James Spilsbury, Ebenezer Teichelmann, William Hall Torbock, Patrick Joseph Ward, Edward Henry Wheeler.

MIDWIFERY.—Patrick Joseph Barry, Edward Joseph Brady, John Smyth Crowe, John Alexander Foreman, Henry Gell, Albert William Gray, Augustus Graydon Johnston, Neal Nelson, Richard Pennefather, William Hall Torbock, Thomas Torney, and Edward Henry Wheeler.

A special examination will be held on the 24th inst. and following days.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 9th inst., the following gentlemen were appointed examiners:—

MEDICINE.—Dr. Norman Moore, St. Catherine's; Dr. Donald Mac Alister, St. John's; Dr. W. H. Broadbent, London.
MIDWIFERY.—Dr. A. L. Galabin, Trinity; Dr. W. O. Priestley, Edinburgh.
SURGERY.—Mr. G. B. Wherry, Downing; Mr. Charles N. Macnamara, F.R.C.S., Mr. Alfred Willett, F.R.C.S.

Also the following degrees were conferred:—

MASTER OF SURGERY.—Henry Walter Pigeon, Christ's.
BACHELORS OF MEDICINE.—Roger Neville Goodman, Hugh Richard Jones, St. John's; Henry Alfred Haviland, Pembroke; James Black, Sidney Blake Jolly, Gonville and Caius.
BACHELORS OF SURGERY.—Hugh Richard Jones, St. John's; Charles Silvester Evans, Clare.

SOCIETY OF APOTHECARIES.—The following gentlemen, having satisfied the Court of Examiners as to their knowledge of the Science and Practice of Medicine, Surgery, and Midwifery, received certificates entitling them to practise as Licentiates of the Society on June 9th:—

Bence, Frederic Herbert, Lancaster-road, Notting-hill.
Bloomer, Frederick William, Russell-street, Wednesbury.
Carter, John George, Brixton-road.
Clifford, Thomas, Thornhill-terrace, Sunderland.
Cockill, William Baron, Trittiville-gardens, Uxbridge-road.
Dodd, George Herbert, Rush-court, Wallingford.
Raby, Leonard, Southwold-road, Clapton.
Richards, George Frederick, The Firs, Beckenham-road, Penge.
Sandoe, John Worden, Bodmin, Cornwall.
Wakefield, Robert Clark, Ladbroke-grove-road, Notting-hill.

THE annual distribution of prizes to the students of the Bristol Medical School took place on the 7th inst.

VACCINATION GRANT.—Mr. F. M. D. Swallow, of the Silkstone District of the Penistone Union, has been awarded the Government grant for efficient vaccination.

BEQUESTS.—The City of Dublin Hospital has received £200 under the will of the late Mr. William Bannon, and £100 from Mr. Richard Kemmis.

THE prizes gained during the past summer and winter session at St. Thomas's Hospital were distributed to the successful competitors by Sir Henry Acland on the 15th inst.

AT the fourth annual meeting of the supporters of the Paddington Children's Hospital on the 10th inst., the financial position of the charity was reported to be very satisfactory.

VACATIONS OF RESIDENT MEDICAL OFFICERS.—The administration of the Assistance Publique in Paris has ordered that the *internes* (house-surgeons and house-physicians) of the various hospitals shall not take their holidays at the same times as their respective chiefs.

PRESENTATION.—Thomas Lamont Macartney, L.R.C.P. and L.R.C.S. Edin., has, on his leaving Worthen, been presented with a magnificent dining-room marble clock and figure, an illuminated address, and a purse of gold by a few of his friends and grateful patients in and around that district.

THE Duke of Portland will preside at a festival dinner, to be held at the Hôtel Métropole to-day (Friday), in aid of the funds of the West End Hospital for Paralysis and Diseases of the Nervous System.

AT the annual general meeting of the subscribers to the Queenstown General Hospital on the 7th inst. satisfactory financial and general reports were presented and adopted.

THE Water Committee of the Sheffield Corporation have come to an arrangement with the directors of the local water company under which the Corporation will take possession of the reservoirs, &c., next January.

THE Liverpool Marine Biology Committee has received a Government grant of £25 towards the expenses of the exploration of Liverpool Bay and the determination of its flora and fauna.

MEDICAL MAGISTRATE.—Colonel Pearson R. Cresswell, F.R.C.S., commanding the 2nd Glamorgan R.V., and Chief Surgeon to the Dowlais Iron Works, has been placed upon the Commission of the Peace for the County of Glamorgan.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

FIRST EXAMINATION.

PART I.—CHEMISTRY, INCLUDING CHEMICAL PHYSICS.

Candidates must answer at least four questions, and not more than six. At least one question in each Section must be answered. Candidates unable to answer four questions must report the fact to the Presiding Examiner, and are not allowed to proceed with their examination.

Section I.—1. Explain clearly the construction of the ordinary mercurial barometer. Why does the mercury fall on ascending heights? What is understood by the term "boiling-point," and what is the connexion between the boiling of liquids and the atmospheric pressure? 2. What is understood by "conduction" and "insulation" as applied to electricity? Describe an electrical machine for frictional electricity, and make clear the objects of conduction and insulation in the machine. How would you proceed to electrify a person with positive electricity?

Section II.—3. Show by equations the result of the action of sulphuretted hydrogen upon the following bodies in solution: chlorine, sulphurous acid, ferric chloride, sulphate of copper, and ammonia. 4. Give two methods for the preparation of sulphur dioxide, and explain the bleaching effect of this acid and that of chlorine. 5. A piece of pure silver is dissolved in nitric acid. Describe the preparation from this solution of lunar caustic, of chloride, and of oxide of silver. Give the properties and formulæ of these bodies.

Section III.—6. How may urea be prepared from the urine? What is its composition and its formula? How do you account for the presence of carbonate of ammonium in stale urine? 7. Describe different methods by which starch can be converted into grape-sugar. How is this sugar distinguished from cane-sugar, and how is it detected in a solution? 8. Describe the preparation and composition of ordinary aldehyde. What are its leading properties? How is chloral hydrate prepared? What is its composition, and how is it related to ordinary aldehyde?

PART II.—MATERIA MEDICA AND PHARMACY.

1. Give an account of the action of digitalis. What are the doses of this drug and of its preparations? 2. What are the officinal compounds and preparations containing arsenicum? Give the strength of the preparations and the doses of all. What is the action of arsenious acid? 3. Give the preparations of ergot, colchicum, and ipecacuanha, and the composition of the pulvis ipecacuanhæ compositus and pilula ipecacuanhæ cum scillâ. Mention the composition, strength, and dose of the hypodermic injection of ergotin. 4. Give a description of (*a*) chloroform, (*b*) iodoform, and an account of the action of each. Enumerate their preparations, and mention the doses of those used internally. 5. Describe the action of the following sulphates: sulphate of iron, magnesium, quinine, sodium, zinc; and give the dose of each. 6. What is the source of pilocarpine? Give an account of its action. How would you administer it, and in what dose?

PART III.—ELEMENTARY PHYSIOLOGY.

1. How would you recognise under the microscope (*a*) the varieties of muscle, (*b*) a medullated nerve-fibre? 2. How does plasma differ from serum, and how may each be obtained from blood? 3. What is the composition of the atmosphere? How does expired differ from inspired air? What are the chief changes produced in the blood by respiration? 4. What are the chief constituents and uses of the gastric and pancreatic juices? 5. In starvation the body temperature is reduced. Explain this. 6. What is meant by (*a*) afferent nerve, (*b*) efferent nerve, (*c*) nerve centre? Give instances of their use.

SECOND EXAMINATION.

ANATOMY.

Candidates must answer at least four questions.

1. Enumerate the bony surfaces which form the anterior fossa of the base of the skull. What markings and foramina are there in this fossa, and what do those foramina respectively transmit? 2. Give the origin, course, and distribution of the external popliteal nerve and its branches. 3. Describe the origin, course, and distribution of the arteries which anastomose in the fossa of the scapula. 4. Describe the dissection of the anterior part of the perineum down to the superficial layer of the triangular ligament. 5. Give the position, relations, connexions, and arterial supply of the stomach. 6. Give the origin, insertion, and nerve supply of the following muscles: (*a*) levator anguli scapulæ, (*b*) flexor sublimis digitorum, (*c*) rectus abdominis, (*d*) adductor magnus.

PHYSIOLOGY.

1. Describe the act of deglutition, including its nervous mechanism. 2. Describe the mucous membrane of the uterus. State the changes which occur at the menstrual period and during gestation. 3. Explain the effects of the respiratory movements on the circulation of the blood. 4. State and explain the effects of exercise on the excreta. 5. Describe the structure, action, and nervous mechanism of the iris. 6. Give the structure of adipose tissue. What is the chemical composition of the fats contained in it? From what constituents of food may fat be formed?

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

EXAMINATION FOR THE LICENCE.
(Third Part or Final.)

PRINCIPLES AND PRACTICE OF SURGERY.

1. Cancer of the tongue: give the symptoms, diagnosis, and treatment. 2. Give the symptoms, the possible results, and the treatment of syphilitic iritis. 3. Describe a case of congenital talipes varus, and give in detail the treatment that may be adopted. 4. What symptoms may be produced by the presence of a foreign body in the trachea or bronchus? How would you treat such an accident? 5. Senile gangrene: what are its causes, its usual course, and termination? What methods of treatment may be adopted? 6. Describe the symptoms and treatment of villous tumour of the bladder.

PRINCIPLES AND PRACTICE OF MEDICINE.

1. Describe the course of the transverse aorta. Give its anatomical relations, with special reference to the physical diagnosis of diseases of that portion of the arterial system. 2. Enumerate the symptoms usually met with in the third week of a case of typhoid fever, as they occur from day to day, and the remedial measures that you would adopt for their relief. 3. What are the signs of a pleural effusion on the right side, rising to the level of the third rib? What symptoms would make you come to the conclusion that the fluid was purulent? and, in the latter case, what treatment would you adopt? 4. Describe the pathology, symptoms, and treatment of infantile paralysis. 5. Describe the course of a case of unmodified small-pox, with its possible complications, especially noting its period of incubation (including its prodromal and eruptive stages), results, and proper treatment. 6. What are the symptoms of cancer of the stomach? Indicate the principal differences that would result from varieties of site in the morbid growth. How would you treat such a case? Write in full the prescription you would give.

MIDWIFERY AND DISEASES OF WOMEN.

1. Describe the chorion up to the end of the second month of gestation. 2. What are the causes of fœtal death in the last two months of gestation? 3. What are the chief methods employed for the induction of premature labour, and what are the circumstances which would determine the choice? 4. State fully what means should be adopted to prevent the occurrence of puerperal fever in obstetric practice. 5. Describe the varieties of cancer of the cervix uteri, with the diagnosis and pathology. 6. B——, aged thirty, was confined two years ago of her second child. She did not suckle the infant, and the catamenia reappeared one month after delivery. The periods, which were somewhat profuse, appeared regularly until a year ago, when the patient had a severe flooding. This recurred at irregular intervals until the time of her admission to the hospital a month ago. On examination, the uterus was felt to be slightly enlarged and the os uteri closed. What are the various conditions which may give rise to these symptoms, and what is the treatment?

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

DIPLOMA OF MEMBER.

PRINCIPLES AND PRACTICE OF MEDICINE.

Candidates must answer three of the four questions, including Question No. 4.

1. Give a full account of cancer of the stomach, including its orifices. 2. Describe the causes, diagnosis, and treatment of hæmoptysis. 3. Under what conditions is excessive elevation of the temperature of the body met with? What temperature is to be deemed dangerous, and what are the means whereby it may be reduced? 4. Give the composition, physiological action, medical uses, and doses of decoctum aloes compositum, ferrum redactum, lithiæ citras, liquor morphinæ hydrochloratis, apomorphinæ hydrochloras, pilula saponis composita, pulvis glycyrrhizæ compositus, syrupus chloral.

MIDWIFERY AND THE DISEASES OF WOMEN.

1. Describe the passage of a child through the pelvis with the breech presenting, with the sacrum to the right sacro-iliac synchondrosis. 2. State the circumstances in which convulsions come on in the puerperal state, and how would you distinguish between them? 3. State the means you would adopt with a view to prevent the infection of parturient and puerperal women. 4. A patient three weeks after labour has a painful fixed swelling in the left iliac fossa, with febrile symptoms. What is the probable nature of the swelling, and what course will it run?

SURGICAL ANATOMY AND THE PRINCIPLES AND PRACTICE OF SURGERY.

Candidates must answer at least four (including one of the first two) of the six questions, and are strongly advised to answer all six questions.

1. Describe the shape, position, and relations of the thyroid body. Mention particularly the points which would require attention in an operation for its removal. 2. Describe the arches of the foot, and the structures by which they are maintained, with especial reference to the deformity known as "flat-foot." 3. Name the most frequent dislocations and fractures occurring at the elbow-joint. Give their differential signs. 4. Describe the surgical treatment of empyema under its various conditions. 5. How may the production of lymph as the result of inflammation be accounted for? Describe its physical and chemical properties, and mention the changes it may undergo. 6. Describe the treatment to be adopted in a case of punctured wound of the cornea with prolapse of the iris. Mention the consequences which may ensue, and the proper modes of dealing with them.

MEDICAL NOTES IN PARLIAMENT.

Dog Owners Bill.

IN the House of Lords on the 10th inst. Lord Mount-Temple moved the second reading of the Dog Owners Bill, the object of which was to provide that the owner of a dog shall be liable in damages for any personal injury done by such dog to any person, and it shall not be necessary for the person suing for the recovery of damages for any such injury to show a previous mischievous propensity in such dog, or that the owner knew or had notice of such mischievous propensity, or that the injury complained of was attributable to any negligence on the part of the owner of the dog in the keeping or management of such dog.—The Lord Chancellor opposed the Bill, and the second reading was negatived.

Rabies in Dogs.

On the 14th inst., on the motion of Viscount Cranbrook, the following were nominated as the Select Committee on rabies in dogs:—The Lord President (Viscount Cranbrook), the Duke of Beaufort, the Earl of Coventry, the Earl of Carnarvon, the Earl of Onslow, the Earl of Zetland, the Earl of Kimberley, Lord Walsingham, Lord Ribblesdale, Lord Poltimore, Lord Belper, Lord Mount Temple.

Sanitation in India.

In the House of Commons on the 13th inst., in reply to Mr. Kenyon, Sir J. Gorst said that the sanitary condition of towns and villages in India was constantly under consideration by the Government of India and the Secretary of State, and that every effort had been, and would be, made to introduce from time to time such improvements as may be practicable.

Scarlatina Infection.

Lord John Manners stated, in answer to Sir U. Kay-Shuttleworth, that the investigations which the veterinary officials of the Agricultural Department had been instructed to make into Dr. Klein's theory of scarlatina infection from the milk of diseased cows were still being carried on, and the report would be laid before Parliament.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BEATLEY, WM. CRUMP, M.D. Durh., M.R.C.S., has been appointed Honorary Physician to the Newcastle-upon-Tyne Dispensary, vice R. Young, M.A., M.D., resigned.

BLACK, ROBERT, M.D.Lond., M.R.C.S., has been appointed Assistant Surgeon to the Sussex County Hospital, vice Uhthoff, resigned.

BRADBROOK, WILLIAM, M.R.C.S., L.S.A., has been appointed Medical Officer for the Inkberrow District of the Alcester Union.

CALDER, AUGUSTUS B., M.B., C.M.Ed., has been reappointed Visiting Medical Officer to the Perth Infirmary.

CLARKE, ARTHUR C., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer for the Chipping Warden District of the Banbury Union.

EVANS, C. W., M.B.Lond., has been appointed Medical Officer of Health to the Bakewell Urban Sanitary Authority.

GILLARD, RICHARD, M.R.C.S., L.S.A., has been appointed Medical Officer for the Ugborough District of the Totnes Union.

GOWANS, W. BRUCE, M.B., C.M.Ed., has been appointed District and Dispensary Surgeon to the Perth Infirmary, vice Hunt, promoted Visiting Medical Officer.

GRAHAM, J. T., M.D.Glas., M.R.C.S., has been reappointed Visiting Medical Officer to the Perth Infirmary.

HEGARTY, ANDREW, M.D., M.Ch.Q.U.I., has been appointed District Medical Officer for the Draperstown Dispensary, vice Morewood, deceased.

HONNYWILL, ALFRED O., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Lea Hall Branch of the Essex County Asylum, vice W. T. Davey, M.D., M.R.C.S., L.S.A., deceased.

HUGHES, ALFRED W., M.B., C.M.Ed., M.R.C.S., has been appointed Medical Officer for the Flint District of the Holywell Union.

HUNT, LEIGH, M.B., C.M.Glas., has been appointed Visiting Medical Officer to the Perth Infirmary.

JEPSON, EDWARD, M.R.C.S., L.S.A., has been appointed Medical Officer for the Workhouse of the Durham Union.

KELLY, MICHAEL P., L.F.P.S.Glas., L.A.H., has been appointed Medical Officer for the Heworth District of the Gateshead Union.

KELSON, W. H., M.R.C.S., has been appointed House-Physician to the London Hospital.

MELSON, GEORGE HYDE, M.B.Lond., M.R.C.S., House-Surgeon to the Queen's Hospital, Birmingham, has been appointed House-Physician, vice Wm. Richards, M.B.Ed., resigned.

MORGAN, WILLIAM V., M.B., C.M.Aber., has been appointed Medical Officer for the First District and the Workhouse of the Narberth Union.

O'NEILL, J. GOWER, L.R.C.P., L.R.C.S., has been appointed Assistant House-Surgeon to the Rotherham Hospital.

POOLEY, THOMAS A., has been appointed Analyst for the Liberty of Havering-atte-Bower in the County of Essex.

RICHARDS, WILLIAM, M.B., C.M. Ed., has been appointed Resident Surgeon to the Birmingham General Dispensary, vice T. R. Gordon, M.D., M.R.C.S., resigned.

ROBERTS, GEORGE A. R., M.R.C.S., L.S.A., has been appointed Medical Officer for the Fourth District of the New Winchester Union.

SHIPTON, ARTHUR, F.R.C.S.Ed., L.S.A., has been appointed Medical Officer for the Buxton District of the Chapel-en-le-Frith Union.

THOMAS, JOHN, M.R.C.S., L.R.C.P.Lond., has been appointed House-Surgeon to the London Hospital.

THOMPSON, MAITLAND, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Fifth District of the Lincoln Union.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

CLINICAL HOSPITAL FOR WOMEN AND CHILDREN, Park-place, Manchester.—House-Surgeon. Salary £80 per annum, with apartments and board.

COVENTRY AND WARWICKSHIRE HOSPITAL. — House-Surgeon. Salary £100 per annum, with board (exclusive of beer, wine, and spirits), lodging, and attendance.

DURHAM COUNTY HOSPITAL. — House-Surgeon. Salary £100 a year, with board and lodging.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Assistant Physician.

HOSPITAL FOR WOMEN, Soho-square, W.—House-Physician. Salary £75 per annum, with board &c.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary £80 per annum, with apartments, board, and attendance.

NATIONAL DENTAL HOSPITAL AND COLLEGE, Great Portland-street, W.—Anæsthetist.—Lecturer on Operative Dental Surgery.

ST. LUKE'S HOSPITAL. — Resident Clinical Assistant. Board and residence.

WESTMINSTER GENERAL DISPENSARY, Gerard-street, Soho, W.—Honorary Surgeon.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Surgical Registrar. Salary £40 per annum.—Assistant Surgeon.

WESTERN OPHTHALMIC HOSPITAL, Marylebone-road, W.—Dispenser.

Births, Marriages, and Deaths.

BIRTHS.

DAWSON.—On the 14th inst., at Heathlands, Southbourne-on-Sea, the wife of Yelverton Dawson, M.D., of a daughter.

MACKENZIE.—On the 14th inst., at Finsbury-square, E.C., the wife of Stephen Mackenzie, M.D., F.R.C.P., of a son.

SCANLAN.—On the 8th inst., at Springfield, Pembroke, the wife of Surgeon-Major Scanlan, Army Medical Staff, of a son.

SCOUGAL.—On the 13th inst., at Brooklands, Gledholt-road, Huddersfield, the wife of E. F. Scougal, M.A., M.B., of a son.

SKIPPER.—On the 12th inst., at Tollington-park, N., the wife of Edward Skipper, M.D., of a daughter.

MARRIAGES.

ALLEN—MAIR.—On the 11th inst., at Holy Trinity Church, Hastings, Surgeon-General F. F. Allen, C.B., and Q.H.P., to Florence Mary Jane, third daughter of George J. J. Mair, Esq., F.S.A., of Upper Bedford-place, Russell-square, London.

ARCHER—COMMERFORD.— On the 14th inst., at St. John's, Hackney, by the Rector, the Rev. A. Brook, M.A., Launcelot Archer, M.R.C.S., of 38, Vincent-square, Westminster, eldest son of Thomas Archer, Esq., of Clapton, to Susie, only daughter of N. W. Commerford, Esq., of Clapton-square.

HATCH—HOMAN.—On the 4th inst., at St. Marylebone Church, William Keith Hatch, M.B., F.R.C.S., Bombay Medical Staff, to Clara Catherine, third daughter of S. A. Homan, Esq., Deputy Surgeon-General, Indian Army (retired).

MACKENZIE—CHRISTIE. —On the 15th inst., at St. Mark's Church, Surbiton, by the Venerable Archdeacon Burney, assisted by the Rev. A. H. Murray, Surgeon A. W. Mackenzie, 5th Punjab Infantry, Punjab Frontier Force, to Jessie Thomson, eldest daughter of the late John Christie, of Forth-bank, Stirlingshire.

MILES—KING.—On April 28th, at All Saints' Church, St. Kilda, near Melbourne, Victoria, by the Rev. J. H. Gregory, Incumbent, assisted by the Rev. Horace Tucker, Incumbent of South Yarra, Melbourne, George Edward Miles, L.R.C.P., M.R.C.S., of Callan-park, Sydney, N.S.W., to Ada Louise, youngest daughter of the Rev. Richard King, of Hampstead, late of Prestwich, Manchester.

PRESTON—SADLER. — On the 9th inst., at St. Mildred's Church, Canterbury, by the Rev. J. Parmiter, Rector, assisted by the Rev. R. N. Gandy, Rector of St. Andrew's, Canterbury, and the Rev. T. Preston, Vicar of Swaffham Prior, Cambridge, father of the bridegroom, Henry Octavius Preston, M.R.C.S., to Dora Mary Sadler, only child of Henry George Sadler, of Oswald House, Canterbury.

DEATHS.

CAMERON.—On the 11th inst., at Morefield, Aberdeen, William Hector Cameron, M.R.C.S., late Staff Surgeon, R.N.

GLOVER.—On the 8th inst., at St. Thomas's Hospital, John Philip Glover, M.R.C.S., L.R.C.P., M.D.Lond., late of Quarndon, Derbyshire, aged 41.

LAUDER.—On the 4th inst., at Comely Bank, Tayport, Fife, Robert Scott Lauder, M.D., aged 43.

MCCABE.—On April 18th, at Sydney, William Alexander Bowes McCabe, F.R.C.S., aged 25.

OXLEY.—On the 14th inst., at Llandudno, Martin Gay Black Oxley, M.D., aged 46.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 16th, 1887.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 10	30·39	N.E.	60	54	112	71	54	...	Cloudy
,, 11	30·44	W.	60	53	116	77	51	...	Bright
,, 12	30·24	W.	65	57	120	80	54	...	Bright
,, 13	30·19	W.	66	58	120	84	54	...	Bright
,, 14	30·24	N.E.	70	60	98	81	60	...	Bright
,, 15	30·31	W.	71	62	122	87	57	...	Bright
,, 16	30·37	E.	67	60	112	79	66	...	Hazy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

SITES FOR INFECTIOUS HOSPITALS.

Mr. G. L. Purchase.—In answer to an inquiry involving the question as to what is the proper area for the site of an infectious hospital, we would point out that for the permanent requirements of an ordinary district arrangement should be made for so placing beds, at the rate of 1 per 1000 of the population, on the site that the number of beds shall not exceed twenty per acre. It may not be deemed requisite to make all the permanent provision at once; but, on the other hand, it is of the greatest advantage to acquire a site exceeding the present requirements and admitting of such temporary hospital extension as an epidemic might necessitate. In placing the buildings on the site an unoccupied zone of not less than forty feet in width should be provided between all buildings intended to receive infected persons and things and the boundary wall or fence. The administrative building ought to be kept free from infection, and it is customary to erect it near the boundary of the site in such a way that entrance to the premises may be effectually controlled from it. Other points relating to the selection of hospital sites will be found in the Supplement by the medical officer to the Tenth Annual Report of the Local Government Board on the Use and Influence of Hospitals for Infectious Diseases.

Dr. G. Thomson (Oldham).—A list of coroners, medical and legal, will be found in Churchill's Medical Directory.

Mr. W. Habgood.—Such clothing can be obtained at 44, Fore-street, E.C.

"TO PASTURES NEW."

To the Editors of THE LANCET.

SIRS,—It should not be difficult to meet the modest requirements of your correspondent, "Emigrant." He desires simply a good climate, an out-door life, and the chance of making £100 a year. He has forgotten, however, to indicate the nature of his ill-health, which would be a material factor in modifying the advice to be given him. He can hardly be far wrong, however, in selecting one of the Australian colonies, and, apart from any personal considerations to guide his choice, probably Sydney affords about the best *locale* at present. If your correspondent dislikes heat, he might try Dunedin in New Zealand. The colonies afford the certainty of a good climate, and a fair prospect of a competency to an active man who can take the rough with the smooth. The sport, however, to which your correspondent alludes is not very first-rate in the colonies, as their legislators have omitted to copy one of our national institutions—viz., the Game Laws.

I am, Sirs, yours obediently,

Belfast, June 13th, 1887. J. A. L.

A WORM IN AN EGG?

Messrs. A. Kendrick and Co.—The specimen was in so dried a state when received that a precise determination of its nature could not then be made. We hope, however, to be in a position to report next week. Meanwhile it may suffice to say that there is no *prima-facie* improbability against the entrance of intestinal parasites into an egg; for they are known to wander into the oviducts of birds. We may refer to THE LANCET, 1849, vol. ii., p. 386, where a correspondent forwarded us a specimen of ascaris lumbricoides which had been found in a newly laid egg.

Dr. McNalty.—Most of the treatises on surgery discuss the subject. Our correspondent might refer to the article "Nævus" in Heath's Dictionary of Practical Surgery.

Mr. Harvey (Ottawa).—We cannot exchange.

"SWEATING OF THE FEET."

To the Editors of THE LANCET.

SIRS,—I have seen only two cases of sweating of the feet. The first was a gentleman who had some years before suffered from syphilis. He was accustomed to the morning tub and other necessary sanitary customs of society, but a few days' hard walking on pavements had rendered his society intolerable owing to the offensive smell from his profusely perspiring feet. His sufferings were enhanced by the raw state this condition had induced. I ordered his socks to be changed night and morning, and the feet to be first washed in cold water with carbolic soap and dried, and next swabbed all over with a lotion made by adding a drop of liq. atropiæ to an ounce of liq. hydrarg. perchlor. This to be allowed to dry on by evaporation. In thirty-six hours I found him quite well, and making preparations to go into camp, he being a volunteer. He has since, I believe, had no return of the annoyance. The second case was that of a servant girl. Her feet were less offensive than were those of the gentleman in the former case, but very painful. Similar treatment quickly cured her.

I am, Sirs, yours faithfully,

Skipton-in-Craven, June 11th, 1887. C. W. SESSIONS BARRETT, M.B.

THE MEDICAL PROFESSION AND JUBILEE HONOURS.

A CORRESPONDENT, under the *nom de plume* of "Brackenthwaite," has sent us a communication in favour of the granting of a peerage to a member of the medical profession, and the bestowal upon the Army Medical Staff of honorary rank. The fact that our correspondent's letter has already appeared in a contemporary, above the signature of "B," prevents us allowing it to appear in our columns.

Mr. R. Saunderson.—The title "physician" attaches to an associate of a College of Physicians, and cannot be claimed or used satisfactorily on the strength of the qualification mentioned in our correspondent's letter. A L.S.A. or L.A.H. is a licensed and qualified medical practitioner.

Mr. E. F. Le Souef.—So far as we are aware, the gas has not been employed in the way and for the purpose named.

CHINESE PHARMACOLOGY.

To the Editors of THE LANCET.

SIRS,—In my "Contributions to Materia Medica and Natural History of China" (1871, Trübner) I have endeavoured to provide something like an Anglo-Chinese dispensatory. Dr. Dobson, in his "Medical Vocabulary in English and Chinese" (Shanghai Mission Press, 1858), on page 59, gives several "names of medicines," and I have followed him as much as possible. The terms and names have had to be manufactured, and I have endeavoured to convey by sense and sound some idea (to the Chinese) of the thing indicated. Iodide of potassium I have called *hai-tien sha*, literally, "sea-indigo salt." Iodine is, of course, obtained from the ashes of sea-weed, and the colours are near enough to each other. I should be happy to associate myself with any Chinese scholar, in order to bring about uniformity in the use of medical and pharmaceutical terms in Chinese.—I am, Sirs, faithfully yours,

Shepton-Mallet, June 8th, 1887. F. PORTER SMITH.

THE DIURETIC ACTION OF MERCURIALS.

G. B. (Paisley).—The most recent authority on the subject is Rosenheim of Berlin, who has worked in concert with Fürbringer. He finds that calomel is contra-indicated in parenchymatous nephritis, while, on the other hand, it has a safe diuretic action in interstitial nephritis. Of the other preparations of mercury, the yellow iodide has also given good results in this form of renal mischief, but not so invariably as calomel. The bichloride of mercury, like the grey mercurial ointment, produces diuresis, but comparatively slight and of brief duration.

Dr. Rouse (Basutoland).—According to the last published returns of the Registrars-general for the several parts of the United Kingdom, the proportion of males to females born in England and Wales was 103·9 to 100 in the year 1886; in Scotland the proportion was 105·4 to 100 in 1883; and in Ireland it was 105·3 to 100 in 1885.

Querens.—The question is still undecided.

CHEMICO-LEGAL ANALYSES IN CUBA.

THE Royal Academy of Sciences of Havana has presented a memorial to the Governor General of Cuba, calling his attention to the extremely unsatisfactory and expensive way in which chemical analyses for medico-legal purposes are now carried out in the island, and praying that steps may be taken to establish an institute of chemico-legal examinations similar to the institutes recently established in Spain. The memorial states that the chemical examinations, which are now mostly conducted by pharmacists acting under the authority of the magistrates, cost the State at least about $30,000 annually, and that as the number of analyses required is rapidly increasing, there is no doubt that the sum of $120,000 will very soon be absorbed. This immense sum, while acting as a heavy burden on an already impoverished treasury, does not afford any guarantee that the analyses are conducted in a trustworthy manner, many of the analysts having a very imperfect acquaintance with chemistry, and the good faith of a certain number of these so-called experts not being above suspicion. It is suggested that for the sum of about $12,000 annually a really efficient institute could be maintained, under the charge of a competent chemist with a salary of $3000, and two assistants—a pharmacist and a medical man—each with $2500. An attendant would receive $500, and the cost of materials is estimated at $2500. Certainly, if the state of forensic chemistry is as unsatisfactory as the Royal Academy believes, it is high time some better system were adopted; and the proposed institute, which would be a sort of Somerset House laboratory, seems a fair method of meeting the want.

Junta.—We think the statement one of the most incredible we ever read, though, of course, we receive it on the strength of our correspondent's authority. The duty of the lady and her husband was peremptorily to stop and decline such obtruded services, and to make the practitioner understand that his visits would not be allowed.

Surgeon.—The office of the Crown Agents for the Colonies, Downing-street, S.W.

TREATMENT OF POISONING BY CHOKE-DAMP.

To the Editors of THE LANCET.

SIRS,—Recently a serious accident happened at, or near, Hamilton, and the following is taken from the report of the accident, which appeared in the *Scotsman* of May 30th:—"The more seriously injured were carried into sheds and other places at the pit-head, where Dr. Robertson, who was at that time alone, attended to them. Fifteen of them required his attention for the effects of choke-damp, they being more or less asphyxiated, some of them, indeed, to an extent that was exceedingly alarming. Half a dozen small pits had been dug by the medical officer's orders, and the men were laid with their heads just over the edge of these, in order that as the poisonous gases were exhaled from the lungs they might be absorbed by the fresh earth, which possesses a sufficient quantity of oxygen to change their character. In one or two cases artificial respiration was also deemed necessary."

Many of your readers would no doubt be glad of an explanation of the above treatment.

I am, Sirs, yours truly,

June, 1887. AMBULANCE.

THE BROWN DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—Kindly insert the following:—Amount already acknowledged, £34 1s. 6d.; Messrs. Oram and Read, £1 1s.; Dr. A. W. Thomas, 10s. 6d.; Dr. E. Adams (Liverpool), 5s.

I remain, Sirs, yours faithfully,

G. STANLEY MURRAY, M.D.

23, Upper Richmond-road, Putney, June 14th, 1887.

CALCULUS IN CHINA.

THE *China Medical Missionary Journal* asks: "Is stone in the bladder anywhere so common as in Kwangtung, where, since the first lithotomy by Dr. Parker at the Canton Hospital in 1844, to the end of 1885, no less than 1057 cases have been operated upon by lithotomy and lithotrity, exclusive of a large number of urethral and preputial calculi extracted? Is it so prevalent in Corea as reported some time since; and what is known of the potent dissolvent of the native physicians there, which potion 'relieved in a few hours, after long and terrible sufferings,' the French Missionary Bishop Ferreol, about 1850?"

ERRATA.—Owing to unavoidable delay in the return of the proof of Sir Andrew Clark's Cavendish Lecture two or three errors escaped correction:—In line 16 of second paragraph the "l" was omitted from the word "causality"; para. 6, line 4, the name "Morell" should have preceded "Mackenzie"; para. 7, line 20, for "assuredly" read *probably;* same para., line 28, for "useful" read *useless;* para. 8, line 13, after "followed" insert "it is said"; para. 9, last line, for "wherewith" read *whereby;* para. 10, line 15, for "arsenic hydrochloric" read *hydrochlorate of arsenic;* para. 11, line 4, for "a thousandth" read *two-thousandth.*

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir H. Pitman, London; Mr. W. C. Macnaughton, Glasgow; Messrs. Sampson Low and Co., London; Mr. Shirtliff, Kingston-on-Thames; Dr. Stanley Murray; Mr. Rowell, Houghton-le-Spring; Dr. Léon Petit; Mr. W. Rivington, London; Dr. Elder, Nottingham; Dr. McNalty; Mr. C. Day, London; Mr. A. H. Allen, London; Mr. G. L. Purchase; Dr. G. Thomson, Oldham; Dr. Robertson, Brixton; Dr. Hubbell, Buffalo; Mr. Dunsford, London; Mr. H. C. Gillies, Brockley; Mr. T. Pagan Lowe, Bath; Mr. Maynard, Newcastle-on-Tyne; Messrs. Cassell and Co., London; Dr. Gibson, Edinburgh; Mr. Saunderson; Mr. Sidney Harvey, London; Mr. C. W. S. Barrett, Skipton; Messrs. Bates and Co., London; Mr. Patten, Ealing; Mr. B. R. Williams; Mr. D'Arcy Power, London; Mr. T. F. Raven, Broadstairs; Messrs. Fannin and Co., Dublin; Mr. Ash, London; Dr. B. Walker, Spondon; Mr. Victor Horsley, London; Dr. Cullingworth, Manchester; Messrs. Christy and Co., London; Mr. F. Lott, London; Dr. McClure, Cromer; Mr. V. Wyatt, London; Mr. W. J. Bell, London; Dr. M. A. Boyd, Dublin; Mr. Mansell-Moullin, London; Mr. W. M. Jones, Swinton; Mr. J. B. Pike, Loughborough; Mrs. Thompson, Loughborough; Mr. Le Souef, London; Dr. A. G. Auld, Wick; Mr. Stump, London; Mr. Logan, Glasgow; Mr. Fuge, Taunton; Mr. Lewis, Wakefield; Dr. Davies, Denbigh; Mr. Hyde, Northampton; Mr. Dicks, Totton; Mr. Manton, London; Dr. Benthal, Southsea; Mr. Pike, Taunton; Mr. Byerley, Portsmouth; Messrs. Takata, London; Dr. Scougal, Huddersfield; Mr. Horncastle, London; Mr. Thompson, Oldham; Dr. Sanctuary, Kensington; Mr. Juler, London; Mr. Freeman, Epsom; Mr. Godfrey, Northampton; Mr. Hosmosjie, Kensington; Messrs. Livingstone, Edinburgh; Mr. Hope, London; Mr. Brown, Westgate; Messrs. Ankin and Son, St. Ives; Mr. Thompson, Manchester; Messrs. Wright and Co., Bristol; Mr. Scott, Manchester; Mr. Burchell; Messrs. Thomae and Co., London; Dr. Silasau, Paris; Mr. Laffan, Cashel; Mr. Evans, Oswestry; Mr. Wood, Bromsgrove; Mr. Farquhar, Harrogate; Rees, Brecknock; Junta; Brackenthwaite; C. H.; M.D.; M.D., Haughley; J. A. L.; Spes.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Harris, Philadelphia; Mr. Ray, Durham; Mr. Crasweller; Mr. Rustomjee Prommurze, Kurrachee; Mr. Kelly, Nottingham; Messrs. Hutton and Co., Bootle; Mr. Townson, Chesterfield; Messrs. Fawcett and Co., Leeds; Mrs. Inman, Sedburgh; Dr. Humphreys; Messrs. Mills and Co., Hanley; Mr. Hutton, London; Mr. Blythe; Messrs. Arber and Co., London; Mr. Breman, Bristol; Mr. Lister; Messrs. Blake and Co., Leeds; Mr. Saunders, Dublin; Mr. Anderson, York; Dr. Heaton, St. Asaph; Mr. Hoysted, Gibraltar; Miss Huat, Dublin; Mr. Russell, Liverpool; Mr. Clifford, Sunderland; Mr. Clarke; Mr. Parkinson, Manchester; Mr. Latimer, Swansea; Mr. Adams, St. Leonards-on-Sea; Mr. Tarleton, Ashton; Mr. Whiting, Bodmin; Miss Thomson, Loughborough; Mr. Stephens, Austell; Mr. Hyde, Baris Barton; Dr. Bradford; Surgeon, London; S. E. M.; Locum, Everton; Nemo; Matron, Middlesbrough; T. W., Oldham; Alpha, Brockley; Hope, Smallheath; Francis, London; Tomkin, London; Ethnoid, Gateshead-on-Tyne; J. F. J. C., Dublin; Dr. A. N., London; Surgeon; Alma, Manchester; T. H. T. F., Dawlish; Victor, London; Sister; Sigma, London; Cantab., Brixton; X. Y. Z., Birmingham; Matron, Bradford; Surgeon, Brighton; M.A., Cambridge; Country; Medicus, Hackney.

Farm, Field, and Fireside, Walthamstow Guardian, Paisley Daily Express, Oriental Advertiser, Worcestershire Echo, Denbigh Free Press, &c., have been received.

Medical Diary for the ensuing Week.

Monday, June 20.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

Tuesday, June 21.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.

Wednesday, June 22.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

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KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9 A.M.; Saturday, same hour.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M.—Specimens will be shown by Dr. Francis Imlach, Dr. Fancourt Barnes, Mr. Lawson Tait, and others.—Dr. A. V. Johnstone (Danville, Kentucky): The Endometrium in the Cycle of the Rut. Council at 8 P.M.

Thursday, June 23.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8 P.M. Mr. Lockwood: Specimens illustrating the Anatomy of the Capsule of Tenon.—8.30 P.M. Collection of Evidence regarding Toxic Amblyopia. Communications will be made by Messrs. Nettleship, McHardy, Edgar Browne, Hill Griffith, Frost, Juler, Shears, Morton, Gunn, and others.

Friday, June 24.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, June 25.

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